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THE

# WEEKLY WEATHER REPORT

OF THE

## METEOROLOGICAL OFFICE

FOR THE YEAR

## 1899

(VOL. XVI.—THIRD SERIES)

CONTAINING

SYNOPTIC CHARTS,

AND

DESCRIPTIVE SUMMARIES OF THE WEATHER FOR EACH DAY;

ALSO

TABULAR SUMMARIES OF TEMPERATURE, RAINFALL, AND BRIGHT SUNSHINE, FOR EACH WEEK,

WITH MONTHLY SUPPLEMENTS AND TWO APPENDICES.

Published by the Authority of the Meteorological Council.

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1900.

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# ERRATA.

MONTHLY SUMMARIES.

| | |
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| January, p. iv. ... ... | Hillington.—Rainfall—18 days; total amount, 2·28 ins.; difference from average, + 0·29 in. |
| February, p. viii. ... | Scarborough.—Temperature—Mean of minimum, 35°·0; of minimum and maximum combined, 40°·9; difference from average, + 1°·7. Rainfall—8 days; total amount, 1·12 ins.; difference from average, — 0·64 ins. |
| | Churchstoke.—Rainfall—12 days; total amount, 4·07 ins.; difference from average, + 1·68 ins. |
| | Cranley.—Temperature—Mean of maximum, 49°·7; of minimum and maximum combined, 42°·2; difference from average, + 2°·4. |
| March, p. xii. ... ... | Scarborough.—Rainfall—13 days; total amount, 2·05 ins.; difference from average, + 0·26 in. |
| | Hillington.—Rainfall—13 days; total amount, 1·27 ins.; difference from average, — 0·32 in. |
| | Cranley.—Rainfall—Total amount, 0·52 in.; maximum fall in one day, 0·25 in. on 25th. |
| April, p. xvi. ... ... | Braemar.—Rainfall—Total amount, 4·07 ins.; difference from average, + 1·91 ins. |
| | Scarborough.—Rainfall—Total amount, 1·56 ins.; difference from average, — 0·27 in. |
| | Cranley.—Rainfall—22 days; total amount, 2·80 ins. |
| | Markree.—Temperature—Mean of minimum, 39°·3; mean of maximum, 52°·8; of minimum and maximum combined, 46°·1; difference from average, + 0°·1. |
| May, p. xx. ... ... | Hillington.—Rainfall—Total amount, 1·80 ins.; difference from average, — 0·06 in. |
| November, p. xliv. ... | Londonderry.—Rainfall—21 days; total amount, 3·12 ins.; difference from average, — 1·07 ins. |

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# PREFACE.

In the Weekly Weather Report for 1899 the general arrangement of the weekly Remarks and Tabular matter is unaltered, and will be found on the first and second pages of each Report. The Charts cover the same area as those for last year, viz.: nearly the whole of Europe and the greater part of the Mediterranean.

*Monthly Summaries* of the observations made at the stations included in the Daily and Weekly Weather Reports again appear as a Supplement.

*Appendices I. and II.* are published, as hitherto—the former with some slight modification since 1891.

The general arrangement of the Report is as follows :—

## LIST OF DISTRICTS.

For the purposes of this Report the United Kingdom is divided into eleven Districts, which are shown on the accompanying map, distinguished by the numbers 0 to 10. The positions of the stations supplying information as to Temperature and Rainfall, and in some cases as to Bright Sunshine also, are marked on the map by black dots, and their names are given in the following list, arranged under the districts to which they belong :—

METEOROLOGICAL DISTRICTS.

**0.** SCOTLAND, N.—Sumburgh Head, Stornoway, Wick, Lairg, Glencarron, Fort Augustus, Fort William.

**1.** SCOTLAND, E.—Nairn, Aberdeen, Braemar, Ochtertyre, Leith, Marchmont.

**2.** ENGLAND, N.E.—Alnwick Castle, Durham, Shields, Scarborough, York*, Spurn Head.

**3.** ENGLAND, E.—Hillington, Yarmouth, Geldeston, Cambridge, Felixstowe, Rothamsted.

**4.** MIDLAND COUNTIES.—Bawtry, Loughborough, Stamford (Duddington), Cheadle, Shirley, Churchstoke, Hereford Cirencester, Oxford.

**5.** ENGLAND, S.—London, Cranley, Dungeness, Hastings, Southampton, Hurst Castle*, Portland Bill, Shaftesbury.

**6.** SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan*, Glenlee, Douglas (Isle of Man).

**7.** ENGLAND, N.W.—Newton Reighny Stonyhurst, Blackpool, Manchester (Prestwich), Liverpool Observatory (Bidston), Llandudno, Holyhead.

**8.** ENGLAND, S.W.—Llandovery, Pembroke, Clifton, Arlington, Cullompton, Falmouth, Plymouth, Prawle Point.*

**9.** IRELAND, N.—Malin Head, Londonderry, Edenfel (Omagh), Belmullet*, Blacksod Point, Markree Castle, Armagh, Donaghadee.

**10.** IRELAND, S.—Dublin, Parsonstown, Kilkenny, Roche's Point, Valencia, Killarney, Foynes.

There are in addition two stations in the Channel Islands, viz., Scilly (St. Mary's), and Jersey (St. Aubin's), which cannot be conveniently placed in any of the Districts. Records from additional stations which supply Sunshine only, are given on the sixth page of each Report.

## WEEKLY SUMMARY.

The Summary on the first page of each Report gives for each week and district the absolute *maximum* and *minimum* temperatures observed, the averages of both the daily extremes, the daily average, and its difference from the mean of the corresponding period, as derived from observations of the 25 years 1871-95, together with the values for "Accumulated" temperature above and below 42° F.

### Daily Mean Temperature.

The daily mean Temperature shown in the Tables is calculated from the mean between the daily maxima and minima, due regard being had for the varying relation found to subsist, from month to month, between the true mean temperature of the day derived from 24 hourly observations, and the means of the daily maxima and minima for a series of years, as recorded at Greenwich, and the self-registering Observatories of the Meteorological Council.

The approximate Mean Daily Temperature for any week is found by multiplying the *difference* between the means of the seven observed maxima and minima by the proper coefficient for the month (shown in the following Table), and adding the product to the mean of the minima :—

| Months. | Coefficient. |
|---|---|
| January. December. | 0·520 |
| February. November. | 0·500 |
| March. October. | 0·485 |
| April. September. | 0·476 |
| May. August. | 0·470 |
| June. July. | 0·465 |

*Example :*

| | ° |
|---|---|
| The mean maximum temperature for a week in December being | 48·1 |
| The mean minimum | 39·3 |
| The difference is | 8·8 |

This difference 8·8 × ·520 (the coefficient for December) = 4·6.

This value when added to the mean minimum (39·3) gives 43°·9, the required mean daily temperature of the week.

### Accumulated Temperature.

The Tables of Accumulated Temperature are designed to give persons engaged in agriculture better means of estimating the manner in which vegetation is affected by temperature than that afforded by the more usual methods of treating the readings of the thermometer. They show for each week, and for the whole period from the commencement of the year, the weekly and progressive values, respectively, of the combined amount and duration of the excess or defect of the air temperature, above or below a suitably fixed standard, or *base temperature*. The base adopted is 42° F., as being nearly equivalent to 6° C. This has been

* The observations from these stations have now ceased.

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considered by Continental writers on these subjects to be the critical value, the temperature above which is mainly effectual in starting and maintaining the growth, and in completing the ripening, of agricultural crops in a European climate. This base is also convenient as being 10° F. above the freezing point on the Fahrenheit scale.

The Accumulated Temperature is expressed in "Day-degrees,"—a Day-degree signifying 1° F. of excess or defect of temperature above or below 42° F. continued for 24 hours, or any other number of degrees for an inversely proportional number of hours.

When the temperature during any period remains either wholly above or below the base temperature, the difference between the base and the mean temperature of the day gives the correct accumulated temperature. In other cases this difference gives only an approximate value for the accumulated temperature, not departing greatly from the truth—the deviation depending on the greater or less extent of the variations of the temperature above or below the base. Further, since the mean between the maximum and minimum of any day is nearly equal to the mean temperature of the day, the difference of the mean of the maximum and minimum from the base will also give, directly, an approximation to the accumulated temperature for the day.

The following rules, however, supply a still closer approximation to the true values sought, and they have been adopted for the preparation of the Tables in this Report. They may be applied to any other base temperature as well as to 42° F., with the slight modification of the numerical coefficients mentioned below.

RULES for computing, for a WEEKLY PERIOD, from the observed MAXIMA and MINIMA, the ACCUMULATED TEMPERATURE above or below 42° F.

1. Obtain the mean temperature, from the means of the seven observed maxima and minima, in the manner already described for daily values.

2. In obtaining the accumulated temperature four cases may occur, to which the following rules will apply :—

| Conditions of Temperature. | To obtain the daily Accumulated Temperature. | |
|---|---|---|
| | Above 42° F. | Below 42° F. |
| If the minimum is *above* 42° F. or *equal* to 42° F. - | Subtract 42° F. from the mean. | There is none. |
| If the minimum is *below* 42° F., but the mean for the day is *above* 42° F. | From the difference between the mean for the day and the minimum deduct the accumulated temperature below 42° F., calculated as stated in the next column. | The required quantity is the excess of 42° F. over the minimum, multiplied by the co-efficient 0·4. |
| If the mean for the day is *below* 42° F., but the maximum is *above* 42° F. | The required quantity is the excess of the maximum over 42° F., multiplied by the co-efficient 0·4. | From the difference between the mean for the day and the minimum deduct the accumulated temperature above 42° F., calculated as stated in the preceding column. |
| If the maximum is *below* 42° F. or *equal* to 42° F. - | There is none. | Subtract the mean from 42° F. |

In each of the above cases the result will be the *average daily* value, and must be multiplied by 7 in order to obtain the value for the whole week.

The coefficient varies with the duration of the period, and also with the base temperature.

The coefficient given above, in Rules 2 and 3, is for a weekly period, and for the base temperature 42° F. The following are its values for other base temperatures,—for 32° F., 0·4 ; for 52° F., 0·33 ; for 62° F., 0·25.

A full explanation of the principles on which these rules are based will be found in Appendix II. to the Quarterly Weather Report for 1878.

## RAINFALL.

The Summary on the first page of each Report gives for each week and each District the number of rainy days, and the total fall of rain, as well as the progressive values reckoned from the commencement of the year, and the difference between these amounts and the means for the corresponding week in the 30 years 1866–95.

## BRIGHT SUNSHINE.

The Summary on the first page gives for each week and each District the numbers of hours of sunshine recorded, and the percentage of that time to the whole time during which the sun is above the horizon ; also the progressive values reckoned from the commencement of the year, together with the difference between them and the mean for the corresponding period in the 15 years 1881 to 1895. The number of stations has been largely increased this year, and the values have been entirely rearranged on pages two and three of the Monthly Summary.

## SUPPLEMENT AND APPENDICES.

*Supplement.*—Consists of twelve Summaries of the results of the Observations made at the Stations included in the Daily and Weekly Weather Reports during each of the Calendar months. Each Summary is illustrated by a lithographed plate showing the distribution of Pressure, Air Temperature, and Rainfall during the month, and the prevalence of wind from various quarters.

*Appendix I.*—This contains (1) Summaries for each Quarter and for the whole year, of the Temperature and Rainfall records for each District, from 1866 to 1899, and (2) Tables giving for each district the monthly values for Rainfall, Accumulated Temperature (above and below 42° F.), and Bright Sunshine, as well as the progressive values for each from the commencement of the year, in continuation of the values given in Appendix I. for last year.

*Appendix II.* gives for the year 1899, and for each District, the weekly and progressive numbers of Rainy days, the Amounts of Rainfall, and the values for Accumulated Temperature (above and below 42° F.), and Bright Sunshine, in continuation of the values for the year 1898 printed in Appendix II. to the Weekly Weather Report for last year.

*Tables showing for each degree of Latitude from 49° N. to 58° N., and for each Weekly and Monthly period, the total numbers of hours during which the Sun is above the Horizon, together with their Reciprocals, are given in the Preface to Vol. I., Second Series.*

## REPORTS RECEIVED TOO LATE FOR INSERTION IN THEIR PROPER PLACES, IN ADDITION TO THOSE ALREADY PUBLISHED ON THE SIXTH PAGE OF SOME OF THE WEEKLY REPORTS.

| Date of Report. | Names of Stations. | Temperature (in Degrees Fahrenheit). | | | | | | | | Rainfall. | | | Bright Sunshine. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest Obds. | Lowest Obds. | Averages for the week. Of Highest each day. | Averages for the week. Of Lowest each day. | Averages for the week. For whole of each day. | Diff. of Daily Average from the Mean for the week. | Accumulated Heat for the week (in Day Degrees). Above 42. | Accumulated Heat for the week (in Day Degrees). Below 42. | No. of Rainy Days. | Rainfall in the Week. | Diff. from the Mean for the Week. | No. of Hours recorded. | Diff. from the Mean for the Week. | Per-centage of possible duration. | Diff. from the Mean for the Week. |
| Week ending Dec. 23 .. | Cranley .. | 43 | 27 | 39·0 | 32·2 | 35·7 | — 3·5 | 0 | 44 | 3 | 0·24 | ? | .. | .. | .. | .. |
| „ „ „ „ .. | Morpeth .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0·2 | ? | 0 | ? |
| „ „ „ „ .. | Thurcaston .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0·0 | — 6·8 | 0 | — 13 |
| „ „ „ „ .. | Colwyn Bay .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 7·2 | ? | 13 | ? |
| „ „ „ 30 .. | Morpeth .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 7·4 | ? | 15 | ? |
| „ „ „ „ .. | Colwyn Bay .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 13·0 | ? | 25 | ? |

THE following is a LIST of the OBSERVERS who have furnished Information voluntarily for Publication in the WEEKLY WEATHER REPORT, 1898, together with the NAMES of their STATIONS and their ALTITUDE above the MEAN SEA LEVEL :—

| Names of Stations. | Altitude above Mean Sea Level. | Names of Observers. | Remarks. |
|---|---|---|---|
| | Feet. | | |
| Alnwick Castle - | 210 | Humphrey J. Willyams, for the Duke of Northumberland, K.G. | |
| Arlington (North Devon). | 613 | W. Stewart, for Lady Chichester. | |
| Armagh - - | 196 | J. L. E. Dreyer and Staff of Observatory. | |
| Blackpool - - ℳ | 31 | A. J. Anderson. | |
| Bognor - - | — | H. C. C. Morris - - - - | Sunshine only. |
| Braemar - - $ | 1,111 | J. A. Aitken, J.P. | |
| Brighton - - | 65 | A. Newsholme, M.D. - - - | Sunshine only. |
| Cheadle - - ℳ | 646 | J. C. Philips. | |
| Churchstoke - ℳ | 538 | P. Wright, F.C.S., F. R. Met. Soc. | |
| Cirencester - - | 446 | The Royal Agricultural College. | |
| Clifton - - - | 230 | D. Rintoul. | |
| Colwyn Bay - | ? | R. E. Lord, M.D., B.Sc. - - | Sunshine only. |
| Cranley - - ℳ | ? | Rev. G. C. Allen, M.A. | |
| Cullompton - - ℳ | 202 | R. Turner, F. R. Met. Soc. | |
| Deerness - - | 169 | M. Spence - - - - - | Sunshine only. |
| Douglas, Isle of Man. | 137 | A. W. Moore, M.A., J.P. | |
| Dublin (City) .. | 47 | J. W. Moore, M.D., F. R. Met. Soc. | |
| „ (Phœnix Park) | 155 | Col. Hellard, R.E. - - - | Sunshine only. |
| Durham - - | 336 | H. J. Carpenter. | |
| Eastbourne - - | 120 | R. Sheward, F. R. Met. Soc. - | Sunshine only. |
| Edenfel (Omagh)- | 300 | Col. Buchanan, F. R. Met. Soc. | |
| Edinburgh - - | 262 | R. C. Mossman, F. R. Met. Soc. - | Sunshine only. |
| Falmouth - - | 167 | Staff of Observatory. | |
| Felixstowe - - | 76 | Rev. J. G. Munday. | |
| Fort Augustus - $ | 68 | Rev. M. Wall. | |
| Fort William - $ | 31 | A. Rankin, for Directors of Observatory. | |
| Foynes- - - | 108 | W Ward, for Lord Monteagle, K.P. | |
| Geldeston - - | 37 | E. T. Dowson, F. R. Met. Soc. | |
| Glasgow - - | 180 | Staff of Observatory. | |
| Glencarron - - $ | 489 | D. D. Munro, for Lord Maclaren. | |
| Glenlee - - $ | 203 | W. Melville, for Prince Smith. | |
| Guernsey - - | 222 | F. E. Carey, M.D., F. R. Met. Soc. | Sunshine only. |
| Hastings (St. Leonards) | 178 | H. Colborne, M.R.C.S. | |
| Hereford (Belmont). - ℳ | 295 | The Prior. | |
| Hesley Hall, Bawtry | 65 | B. I. Whitaker, F. R. Met. Soc. | |
| Hillington - - ℳ | 88 | Rev. H. E. B. Ffolkes, M.A., F. R. Met. Soc. | |
| Hollesley Bay - | 38 | Prof. C. J. Freer Thonger, F.C.S. | Sunshine only. |
| Kilkenny - - | 212 | H. Carlton, for the Marquis of Ormonde, K.P. | |
| Killarney - - | 86 | The Ven. Archdeacon Wynne. | |

| Names of Stations. | Altitude above Mean Sea Level. | Names of Observers. | Remarks |
|---|---|---|---|
| | Feet. | | |
| Lairg - - - | 335 | D. Macrae, B.D. | |
| Laudale - - | 14 | A. Fletcher, for T. G. H. Newton, M.A., F. R. Met. Soc. | |
| Llandovery - - | 217 | J. Watkins, F. R. Met. Soc. | |
| Llandudno - - ℳ | 88 | J. Nicol, M.D., F. R. Met. Soc., and W. Little. | |
| Londonderry - | 67 | J. Conroy, F. R. Met. Soc. | |
| Lowestoft - - | — | S. H. Miller, F.R.A.S. - - - | Sunshine only. |
| Manchester (Oldham Rd.) | 190 | J. Niven, M.A., M.B. - - - | Sunshine only. |
| Marchmont - - $ | 498 | J. A. Wood, for Sir H. P. Campbell, Bt. | |
| Margate - - | 83 | J. Stokes, F. R. Met. Soc. - - | Sunshine only. |
| Markree Castle - | 122 | J. W. Henkel, B.A., F.R.A.S., for Col. Cooper, F.R.A.S. | |
| Morpeth - - | 324 | G. P. Berry - - - - - - | Sunshine only. |
| Newquay - - | 250 | J. Pearce - - - - - - | Sunshine only. |
| Newcastle-on-Tyne. | 152 | W. H. Martin - - - - - | Sunshine only. |
| Ochtertyre - - $ | 329 | G. Croucher, F. R. Met. Soc. | |
| Oswaldkirk - - | 510 | R. Thompson - - - - - | Sunshine only. |
| Plumstead - - | ? 85 | J. G. Waller, F. R. Met. Soc. - | Sunshine only. |
| Plymouth - - | 116 | H. Victor Prigg. | |
| Prestwich - - | 320 | T. R. H. Clunn, M.D., F. R. Met. Soc. | |
| Rothamsted- - | 368 | Sir J. B. Lawes, Bart., LL.D., F.R.S., Sir J. H. Gilbert, Ph. D., F.R.S., and T. Wilson, F. R. Met. Soc. | |
| Scarborough - ℳ | 159 | E. W. Ellerbeck. | |
| Sheffield - - | 429 | H. Howarth - - - - - | Sunshine only. |
| Shirley (Solihull) | 460 | B. Boothroyd. | |
| Southampton - | 78 | J. T. Cook, R.E., the Ordnance Survey Office. | |
| Southport - - | ? | J. Baxendell, F. R. Met. Soc. - | Sunshine only. |
| Stamford (Duddington). | 152 | F. Coventry. | |
| Stonyhurst - - | 375 | Staff of Observatory. | |
| Strathpeffer Spa - | 253 | J. Tregelles Fox, M.D. - - | Sunshine only. |
| Shaftesbury- - | 722 | Miss L. Wand. | |
| Tenby - - - | ? 79 | W. T. Balmer - - - - - | Sunshine only. |
| Thurcaston - - | 253 | Rev. T. A. Preston, M.A., F. R. Met. Soc. | Sunshine only. |
| Torquay - - | 286 | A. Chandler, F. R. Met. Soc. - | Sunshine only. |
| Ventnor Hospital | ? 85 | C. Lewis, M.B. - - - - | Sunshine only. |
| Watergate - - | 375 | R. Christy - - - - - | Sunshine only. |
| Westbourne- - | 30 | Rev. L. B. Birkett - - - | Sunshine only. |
| Worksop - - | 56 | H. Mellish, J.P., F. R. Met. Soc. - | Sunshine only. |
| York - - - | 105 | E. B. Collinson. | |

Stations marked "ℳ" report through the Royal Meteorological Society ; those marked "$" through the Scottish Meteorological Society.

NOTE.—In cases where "Sunshine only" is received the altitudes quoted were those of the Recorders, not of the ground ; in cases where all the values are given the altitudes are those of the surface of the ground where the rain-gauge is placed.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

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VOL XVI. No. 1.] *Third Series.* WEEK ENDING SATURDAY, JANUARY 7TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 2.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 48 | 23 | 42·3 | 33·1 | 37·9 | 0 (average) | 1 | − 4 | 33 | − 9 | 1 | − 4 | 33 | − 9 |
| | 1. SCOTLAND, EAST | 50 | 14 | 40·6 | 30·9 | 36·0 | 1 below | 0 | − 6 | 42 | − 1 | 0 | − 6 | 42 | − 1 |
| | 2. ENGLAND, N.E. | 52 | 28 | 43·2 | 33·7 | 38·7 | 1 above | 3 | − 3 | 32 | − 7 | 3 | − 3 | 32 | − 7 |
| | 3. ENGLAND, EAST | 56 | 23 | 45·4 | 33·6 | 39·7 | 3 above | 10 | + 3 | 33 | −12 | 10 | + 3 | 33 | −12 |
| | 4. MIDLAND COUNTIES | 54 | 23 | 45·1 | 32.8 | 39·2 | 2 above | 9 | + 1 | 36 | − 9 | 9 | + 1 | 36 | − 9 |
| | 5. ENGLAND SOUTH | 54 | 28 | 47·7 | 36·8 | 42·4 | 4 above | 24 | +13 | 14 | −23 | 24 | + 13 | 14 | − 23 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 52 | 27 | 44·3 | 34·8 | 39·7 | 1 above | 6 | − 3 | 28 | − 3 | 6 | − 3 | 28 | − 3 |
| | 7. ENGLAND, N.W. | 53 | 30 | 45·8 | 36·5 | 41·4 | 2 above | 11 | + 3 | 24 | − 9 | 11 | + 3 | 24 | − 9 |
| | 8. ENGLAND, S.W. | 54 | 25 | 48·8 | 38·1 | 43·7 | 3 above | 28 | +14 | 11 | -16 | 28 | + 14 | 11 | − 16 |
| | 9. IRELAND, NORTH | 52 | 23 | 45·6 | 33·1 | 39·6 | 0 (average) | 10 | − 1 | 35 | + 7 | 10 | − 1 | 35 | + 7 |
| | 10. IRELAND, SOUTH | 56 | 29 | 48·8 | 35·9 | 42·6 | 1 above | 30 | +13 | 17 | − 6 | 30 | + 13 | 17 | − 6 |
| | —CHANNEL ISLANDS | 55 | 39 | 52·9 | 43·5 | 48·4 | 4 above | 45 | +22 | 0 | −11 | 45 | + 22 | 0 | − 11 |

### Rainfall.

| | DISTRICTS. (See p. 2.) | For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 5 | 8 | 5 less | 5 | 0 | 0·8 | − 0·5 |
| | 1. SCOTLAND, EAST | 6 | 7 | 0 (average) | 6 | + 3 | 0·7 | 0·0 |
| | 2. ENGLAND, N.E. | 5 | 4 | 0 (average) | 5 | + 1 | 0·4 | − 0·1 |
| | 3. ENGLAND, EAST | 5 | 4 | 1 less | 5 | + 1 | 0·4 | − 0·1 |
| | 4. MIDLAND COUNTIES | 5 | 5 | 0 (average) | 5 | + 2 | 0·5 | 0·0 |
| | 5. ENGLAND, SOUTH | 5 | 5 | 1 less | 5 | + 2 | 0·5 | − 0·1 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 7 | 13 | 0 (average) | 7 | + 3 | 1·3 | 0·0 |
| | 7. ENGLAND, N.W. | 6 | 8 | 1 more | 6 | + 2 | 0.8 | + 0·1 |
| | 8. ENGLAND, S.W. | 6 | 12 | 3 more | 6 | + 2 | 1·2 | + 0·3 |
| | 9. IRELAND, NORTH | 6 | 10 | 2 more | 6 | + 2 | 1·0 | + 0·2 |
| | 10. IRELAND, SOUTH | 7 | 12 | 3 more | 7 | + 3 | 1·2 | + 0·3 |
| | — CHANNEL ISLANDS | 6 | 14 | 7 more | 6 | + 1 | 1·4 | + 0·7 |

### Bright Sunshine.

| | DISTRICTS. (See p. 2.) | For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 7 | + 2 | 14 | + 3 | 7 | + 2 | 14 | + 3 |
| | 1. SCOTLAND, EAST | 5 | − 2 | 10 | − 6 | 5 | − 2 | 10 | − 6 |
| | 2. ENGLAND, N.E. | 5 | − 3 | 10 | − 5 | 5 | − 3 | 10 | − 5 |
| | 3. ENGLAND, EAST | 14 | + 4 | 27 | + 7 | 14 | + 4 | 27 | + 7 |
| | 4. MIDLAND COUNTIES | 8 | − 1 | 16 | − 2 | 8 | − 1 | 16 | − 2 |
| | 5. ENGLAND, SOUTH | 11 | 0 | 19 | 0 | 11 | 0 | 19 | 0 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 3 | − 5 | 7 | − 8 | 3 | − 5 | 7 | − 8 |
| | 7. ENGLAND, N.W. | 6 | − 2 | 12 | − 3 | 6 | − 2 | 12 | − 3 |
| | 8. ENGLAND, S.W. | 7 | − 5 | 13 | − 8 | 7 | − 5 | 13 | − 8 |
| | 9. IRELAND, NORTH | 3 | − 7 | 6 | −13 | 3 | − 7 | 6 | −13 |
| | 10. IRELAND, SOUTH | 6 | − 6 | 12 | −11 | 6 | − 6 | 12 | −11 |
| | — CHANNEL ISLANDS | 7 | − 6 | 13 | −10 | 7 | − 6 | 13 | −10 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. the Midland Counties, England S., Scotland W., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was very unsettled in all parts of the Kingdom during the earlier days of the period, with frequent rain in the south and west, and rain and snow in the north. During the night of the 2nd thunder and lightning were experienced at some stations on the coasts of the English Channel. Later in the week the conditions improved greatly over England, but continued very unsettled and rainy in Ireland and Scotland.

*Temperature* was again above the mean in most districts, but just equal to the normal in Scotland N. and Ireland N., and was a little below it in Scotland E. The highest of the maxima were recorded, as a rule, on the 4th, and ranged from 56° in England E. and Ireland S. to 50° in Scotland E. and to 48 in Scotland N. The lowest of the minima, which were registered either on the 6th or 7th over Great Britain and on irregular dates in Ireland, ranged from 14° in Scotland E. (at Braemar) and from 23° in Scotland N., Ireland N., England E. and the Midland Counties to 30° in England N.W., and 39° in the Channel Islands.

*Rainfall* was rather less than the mean over eastern and southern England, and just equal to the normal in Scotland E. and W., the Midland Counties, and England N.E. ; elsewhere the fall exceeded the mean, the excess being large in the Channel Islands.

*Bright Sunshine* exceeded the mean in Scotland N. and England E., and just equalled it in England S., in all other districts, however, it was deficient. The percentage of the possible duration ranged from 27 in England E. and 19 in England S. to 7 in Scotland W., and to 6 in Ireland N.

*Barometer and Wind.*—At the commencement of the week a depression was approaching our north-west coasts, while small secondary systems were shown over England. South-Westerly and Southerly winds consequently prevailed very generally, and blew with the force of a gale at many of our western and north-western stations. By Monday morning the centre of this depression lay over the west of Scotland, and as an important secondary disturbance had appeared over the southern parts of the North Sea, the condition was somewhat complex. Strong South-Easterly gales were experienced on the east coast of Scotland, and fresh to strong Westerly gales in the south-west and west generally, while over the east and south-east of England the winds were light or moderate from the South-Westward. During Tuesday the main depression commenced to move away northwards and to decrease in depth, and during the remainder of the week the disturbances which continued to arrive from the Atlantic did little more than skirt our extreme western and northern coasts, and cause occasional moderate or fresh gales in exposed parts of our western and north-western districts, and moderate Southerly winds elsewhere.

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# II.—DATA from which the SUMMARY on page 1 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Rainfall Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 43 | 34 | 41·6 | 35·7 | 38·8 | − 0·3 | 0 | 22 | 6 | 0·98 | + 0·07 | * | * | * | * |
| | Stornoway | 44 | 31 | 43·7 | 33·7 | 38·9 | + 0·3 | 5 | 32 | 4 | 0·48 | − 0·74 | 7·5 | + 1·4 | 17 | + 3 |
| | Wick | 45 | 29 | 43·7 | 34·0 | 39·1 | + 1·5 | 5 | 31 | 7 | 0·77 | + 0·17 | * | * | * | * |
| | Lairg Ⓢ | 43 | 23 | 39·8 | 29·1 | 24·7 | − 1·5 | 0 | 51 | 5 | 0·54 | − 0·29 | * | * | * | * |
| | Glencarron Ⓢ | 46 | 26 | 41·9 | 32·5 | 37·4 | + 0·3 | 0 | 32 | 5 | 0·83 | − 1·43 | * | * | * | * |
| | Fort Augustus Ⓢ | 44 | 30 | 41·0 | 32·6 | 37·0 | − 1·2 | 0 | 35 | 5 | 0·70 | − 0·38 | 5·7 | + 2·6 | 12 | + 5 |
| | Fort William Ⓢ | 48 | 30 | 44·3 | 33·9 | 39·3 | + 0·6 | 6 | 31 | 5 | 1·05 | − 1·10 | 6·3 | + 1·9 | 13 | + 4 |
| 1. SCOTLAND E. | Nairn | 47 | 26 | 41·1 | 29·1 | 35·3 | − 2·0 | 0 | 47 | 6 | 0·27 | − 0·18 | * | * | * | * |
| | Aberdeen | 44 | 27 | 41·7 | 34·1 | 38·1 | + 0·8 | 0 | 27 | 7 | 1·01 | + 0·43 | 7·0 | − 3·3 | 15 | − 7 |
| | Braemar Ⓢ | 49 | 14 | 38·6 | 27·4 | 33·2 | − 1·0 | 0 | 62 | 7 | 0·76 | + 0·06 | 5·7† | + 1·1† | 12† | + 2† |
| | Ochtertyre Ⓢ | 43 | 20 | 39·6 | 29·7 | 34·9 | − 1·3 | 0 | 50 | 7 | 0·98 | − 0·08 | * | * | * | * |
| | Leith | 50 | 28 | 44·1 | 33·4 | 39·0 | + 0·1 | 6 | 33 | 5 | 0·36 | − 0·04 | * | * | * | * |
| | Marchmont Ⓢ | 47 | 29 | 38·7 | 31·7 | 35·3 | − 0·7 | 0 | 47 | 6 | 0·60 | 0·00 | 3·3 | − 5·1 | 7 | −11 |
| 2. ENGLAND, N.E. | Alnwick Castle | 51 | 28 | 44·5 | 33·2 | 39·1 | + 1·7 | 7 | 34 | 6 | 0·79 | + 0·24 | * | * | * | * |
| | Durham | 50 | 28 | 41·0 | 33·0 | 37·2 | + 0·6 | 0 | 34 | 5 | 0·43 | − 0·08 | 8·6 | − 1·4 | 17 | − 2 |
| | Shields | 51 | 31 | 44·3 | 34·3 | 39·5 | + 1·4 | 6 | 30 | 5 | 0·31 | − 0·11 | * | * | * | * |
| | Scarborough Ⓜ | 50 | 30 | 42·8 | 32·9 | 38·5 | + 0·4 | 2 | 30 | 3 | 0·46 | − 0·04 | 5·7 | ? | 11 | ? |
| | York | 52 | 29 | 43·6 | 32·9 | 38·5 | + 1·4 | 4 | 35 | 6 | 0·38 | − 0·05 | 0·2 | − 6·4 | 0 | −11 |
| | Spurn Head | 49 | 31 | 43·0 | 35·1 | 39·2 | + 1·2 | 3 | 26 | 4 | 0·27 | − 0·09 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 51 | 23 | 44·4 | 32·3 | 38·6 | + 2·3 | 7 | 37 | 5 | 0·38 | − 0·10 | 9·9 | + 0·2 | 19 | + 1 |
| | Yarmouth | 48 | 30 | 44·3 | 34·3 | 39·5 | + 2·2 | 6 | 30 | 6 | 0·50 | 0·00 | * | * | * | * |
| | Geldeston | 52 | 23 | 46·1 | 33·9 | 40·2 | + 2·5 | 11 | 33 | 5 | 0·42 | + 0·03 | 10·4 | + 5·1 | 30 | + 9 |
| | Cambridge | 56 | 28 | 46·7 | 32·1 | 39·7 | + 2·7 | 13 | 40 | 5 | 0·28 | − 0·07 | 11·6 | + 1·8 | 21 | 0 |
| | Felixstowe | 49 | 32 | 44·7 | 36·0 | 40·5 | + 2·4 | 8 | 24 | 4 | 0·30 | ? | 19·8 | ? | 37 | ? |
| | Rothamsted | 53 | 28 | 46·2 | 32·7 | 39·7 | + 2·8 | 12 | 37 | 7 | 0·38 | − 0·17 | 13·1 | + 3·3 | 24 | + 5 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 52 | 27 | 44·1 | 31·0 | 37·8 | + 0·8 | 6 | 42 | 6 | 0·29 | − 0·12 | * | * | * | * |
| | Loughborough | 52 | 27 | 45·1 | 31·6 | 38·6 | + 1·4 | 9 | 40 | 4 | 0·58 | + 0·13 | * | * | * | * |
| | Stamford (Duddington) | 52 | 23 | 44·1 | 31·0 | 37·8 | + 1·3 | 6 | 42 | 5 | 0·46 | + 0·02 | * | * | * | * |
| | Cheadle Ⓜ | 52 | 30 | 43·0 | 33·8 | 38·6 | + 2·2 | 3 | 31 | 4 | 0·65 | + 0·01 | * | * | * | * |
| | Shirley (near Solihull) | 52 | 29 | 45·1 | 32·3 | 39·0 | + 2·0 | 9 | 38 | 7 | 0·85 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 53 | 29 | 45·4 | 34·5 | 40·2 | + 2·8 | 10 | 30 | 4 | 0·79 | + 0·14 | 11·3 | + 1·9 | 21 | + 3 |
| | Hereford Ⓜ | 54 | 28 | 46·3 | 34·4 | 40·6 | + 2·5 | 12 | 31 | 6 | 0·64 | + 0·12 | * | * | * | * |
| | Cirencester | 51 | 29 | 45·6 | 31·4 | 38·8 | + 1·7 | 10 | 42 | 5 | 0·35 | − 0·30 | 8·3 | − 3·3 | 15 | − 6 |
| | Oxford | 53 | 30 | 47·0 | 35·3 | 41·4 | + 3·4 | 14 | 29 | 3 | 0·21 | − 0·25 | 9·0 | − 1·7 | 17 | − 2 |
| 5. ENGLAND, S. | London | 53 | 32 | 46·9 | 35·3 | 41·3 | + 2·6 | 14 | 28 | 4 | 0·20 | − 0·26 | 5·8† | + 0·3† | 11† | + 1† |
| | Cranley Ⓜ | 52 | 28 | 47·5 | 33·6 | 40·8 | + 2·1 | 15 | 35 | 5 | 0·36 | ? | * | * | * | * |
| | Dungeness | 50 | 34 | 47·4 | 37·4 | 42·6 | + 3·5 | 24 | 13 | 4 | 0·45 | − 0·11 | * | * | * | * |
| | Hastings (St. Leonards) | 52 | 35 | 47·9 | 39·0 | 43·6 | + 4·1 | 24 | 8 | 4 | 0·37 | − 0·25 | 13·3 | − 0·2 | 24 | − 1 |
| | Southampton | 54 | 33 | 49·1 | 37·6 | 43·6 | + 4·3 | 30 | 12 | 6 | 0·58 | − 0·13 | 8·6 | − 2·6 | 16 | − 15 |
| | Hurst Castle | 52 | 36 | 48·9 | 38·9 | 44·1 | + 4·0 | 28 | 9 | 4 | 0·62 | − 0·01 | * | * | * | * |
| | Shaftesbury Ⓜ | 51 | 32 | 45·9 | 35·7 | 41·0 | + 4·3 | 11 | 26 | 7 | 0·82 | + 0·12 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 51 | 33 | 45·8 | 35·2 | 40·7 | + 1·3 | 11 | 28 | 7 | 1·41 | − 0·59 | * | * | * | * |
| | Glasgow | 49 | 30 | 42·2 | 34·3 | 38·4 | + 0·4 | 1 | 28 | 7 | 0·90 | + 0·05 | 2·0 | − 2·8 | 4 | − 6 |
| | Ardrossan | 50 | 31 | 44·1 | 35·4 | 39·9 | 0·0 | 6 | 26 | 7 | 0·62 | − 0·22 | * | * | * | * |
| | Glenlee Ⓢ | 48 | 27 | 42·4 | 33·4 | 38·1 | + 0·9 | 1 | 32 | 7 | 1·75 | + 0·17 | * | * | * | * |
| | Douglas (Isle of Man) | 52 | 30 | 46·9 | 35·6 | 41·5 | + 0·9 | 14 | 28 | 6 | 1·71 | + 0·71 | 4·6 | − 5·7 | 9 | −11 |
| 7. ENGLAND, N.W. | Stonyhurst | 50 | 31 | 42·5 | 35·1 | 39·0 | + 1·6 | 1 | 26 | 7 | 1·15 | + 0·21 | 4·8 | − 3·5 | 9 | − 6 |
| | Blackpool Ⓜ | 51 | 31 | 46·5 | 35·8 | 41·4 | + 3·3 | 13 | 27 | 6 | 0·63 | − 0·02 | 5·3 | − 3·1 | 10 | − 5 |
| | Manchester (Prestwich) | 52 | 30 | 43·9 | 34·4 | 39·3 | + 1·9 | 5 | 29 | 7 | 1·16 | + 0·43 | 2·8 | ? | 5 | ? |
| | Liverpool Obsy. (Bidston) | 53 | 34 | 46·3 | 36·1 | 41·4 | + 2·3 | 12 | 25 | 5 | 0·54 | + 0·06 | * | * | * | * |
| | Llandudno Ⓜ | 53 | 35 | 47·9 | 38·8 | 43·5 | + 2·4 | 24 | 9 | 3 | 0·55 | − 0·07 | 9·3 | + 0·4 | 18 | + 2 |
| | Holyhead | 53 | 37 | 47·9 | 39·0 | 43·6 | + 1·4 | 24 | 8 | 6 | 0·77 | − 0·01 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 52 | 25 | 48·0 | 31·7 | 40·2 | + 2·2 | 17 | 43 | 7 | 0·66 | − 0·49 | * | * | * | * |
| | Pembroke | 53 | 40 | 50·4 | 43·6 | 47·1 | + 4·2 | 36 | 0 | 5 | 0·58 | − 0·26 | 6·7 | − 4·6 | 12 | − 8 |
| | Clifton | 53 | 35 | 47·9 | 37·5 | 42·9 | + 3·6 | 25 | 13 | 5 | 0·76 | + 0·04 | * | * | * | * |
| | Arlington (N. Devon) | 51 | 33 | 47·3 | 35·6 | 41·7 | + 1·7 | 15 | 28 | 5 | 1·47 | + 0·35 | * | * | * | * |
| | Cullompton Ⓜ | 54 | 32 | 48·3 | 35·1 | 42·0 | + 2·8 | 18 | 19 | 7 | 1·63 | + 0·86 | 5·3 | − 4·5 | 10 | − 7 |
| | Falmouth | 53 | 37 | 50·1 | 43·3 | 46·8 | + 3·2 | 34 | 0 | 6 | 2·14 | + 0·95 | 8·8 | − 3·2 | 16 | − 6 |
| | Plymouth | 53 | 34 | 49·4 | 39·6 | 44·7 | + 2·8 | 29 | 7 | 7 | 1·36 | + 0·52 | 3·9 | − 7·0 | 7 | −12 |
| | Prawle Point | 52 | 35 | 49·0 | 38·4 | 43·9 | + 2·1 | 28 | 10 | 7 | 0·97 | + 0·27 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 51 | 33 | 46·1 | ? 36·3 | ? 41·4 | ? + 0·3 | ? 11 | ? 24 | 7 | 1·23 | ? | * | * | * | * |
| | Londonderry | 50 | 29 | 44·5 | 32·9 | 38·9 | − 1·0 | 7 | 35 | 6 | 0·94 | + 0·07 | * | * | * | * |
| | Edenfel (Omagh) | 51 | 25 | 44·9 | 30·3 | 37·9 | + 0·5 | 8 | 45 | 6 | 0·96 | + 0·19 | * | * | * | * |
| | Belmullet | 52 | 32 | 47·4 | 37·0 | 42·4 | − 0·1 | 24 | 14 | 7 | 1·24 | + 0·04 | * | * | * | * |
| | Markree Castle | 52 | 23 | 45·6 | 30·5 | 38·4 | − 0·7 | 10 | 45 | 6 | 0·86 | − 0·04 | 1·9 | − 6·3 | 4 | −12 |
| | Armagh | 50 | 26 | 45·1 | 32·5 | 39·1 | + 0·8 | 9 | 38 | 6 | 0·60 | − 0·06 | 4·4 | − 5·2 | 8 | −11 |
| | Donaghadee | 52 | 29 | 45·6 | 32·3 | 39·2 | − 1·1 | 10 | 38 | 7 | 1·10 | + 0·48 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND S. | Dublin | 56 | 34 | 48·1 | 36·5 | 42·5 | + 1·3 | 27 | 15 | 7 | 0·79 | + 0·29 | 7·9 | − 5·2 | 15 | −10 |
| | Parsonstown | 53 | 31 | 47·1 | 33·3 | 40·5 | + 1·0 | 14 | 36 | 7 | 0·52 | − 0·16 | 6·4 | − 4·6 | 12 | − 9 |
| | Kilkenny | 54 | 29 | 48·1 | 32·6 | 40·7 | 0·0 | 17 | 40 | 7 | 1·23 | + 0·49 | * | * | * | * |
| | Roche's Point | 53 | 35 | 49·6 | 39·0 | 44·5 | + 1·2 | 30 | 8 | 7 | 1·39 | + 0·22 | * | * | * | * |
| | Valencia | 54 | 33 | 50·0 | 38·3 | 44·4 | − 0·5 | 32 | 10 | 6 | 1·70 | + 0·28 | 4·4 | − 7·8 | 8 | −14 |
| | Killarney | 56 | 32 | 50·4 | 34·9 | 43·0 | − 0·2 | 37 | 20 | 6 | 1·86 | ? | * | * | * | * |
| | Foynes | 54 | 34 | 48·5 | 36·9 | 42·9 | + 1·8 | 28 | 14 | 6 | 0·82 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 55 | 39 | 53·3 | 43·0 | 48·4 | + 2·5 | 45 | 0 | 6 | 1·14 | + 0·32 | 8·9 | ? | 16 | ? |
| | Jersey | 55 | 39 | 52·4 | 43·9 | 48·3 | + 5·9 | 44 | 0 | 6 | 1·72 | + 0·97 | 5·8 | − 9·0 | 10 | −17 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

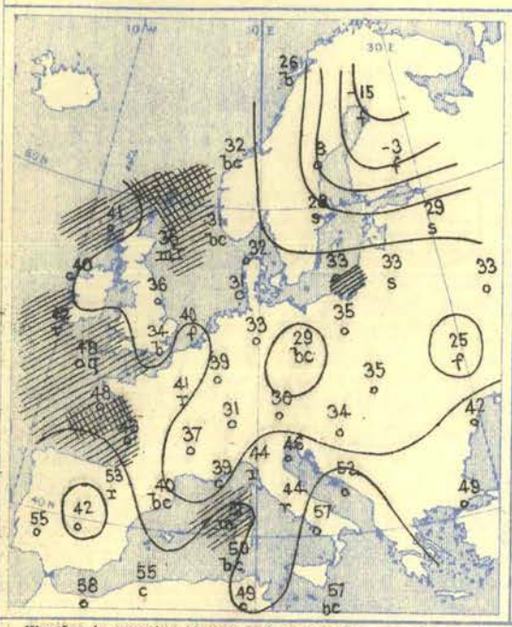
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

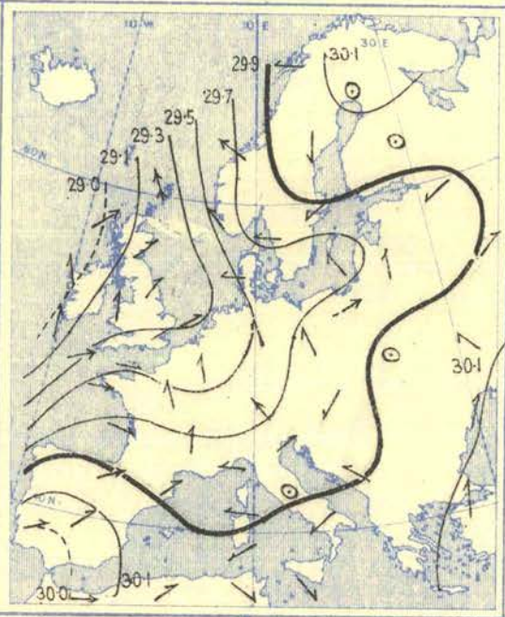
NOTE.—It will be seen that Felixstowe and Farnham (Cavan) have been added to the list of stations in England E. and Ireland N. respectively.

## Sunday, 1st January.

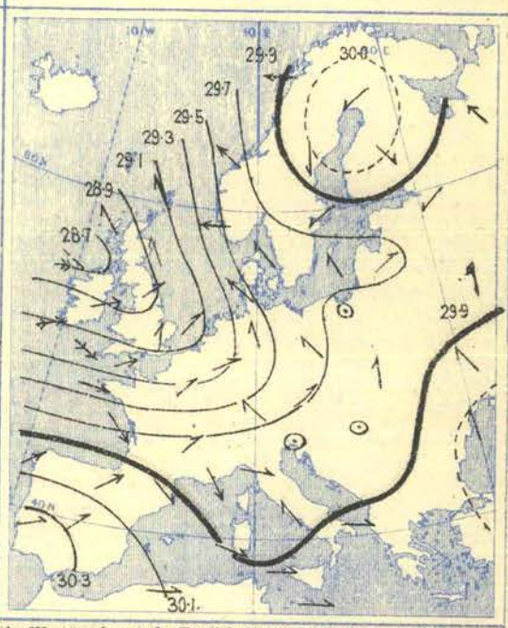
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy and changeable over the greater part of Europe, with rain in the north-east of Scotland, the south of Ireland, the eastern parts of the English Channel, and the north of France, as well as at Biarritz, Bilbao, Leghorn, and Rome; snow reported over the Gulf of Finland, the Baltic Provinces, and the south of Sweden. Foggy over central England, and also over Lapland. Rain falling later over nearly the whole of Europe—heavily in the Channel Islands and France. Thunderstorms occurring at Scilly, Jersey, and Lorient, and lightning seen at Prawle Point, and in London.

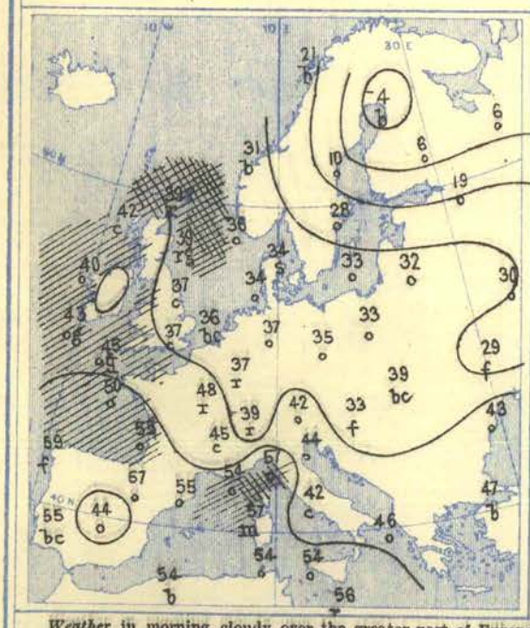
*Temperature* fallen in most parts of north-western, northern, and central Europe, risen in France and Spain. Morning readings highest, 58° at Nemours, 57° at Malta, and 55° at Lisbon and Algiers; above 50° at several of the Mediterranean and Spanish coast stations. Lowest, −15° Fahr. at Haparanda, −3° at Kuopio, and +8° at Hernösand; below the freezing point in most parts of northern, eastern, and central Europe. Daily maxima below 40° in the north of England, and below 45° in most parts of Great Britain; thermometer exceeding 55° in many parts of southern Europe.

*Wind* moderate to strong from the Westward over the English Channel and the west of France; light from the Southward over the greater part of our Islands, but fresh in force in the south of Ireland and the north of Scotland; South-Easterly or Easterly over the Netherlands, Germany, Denmark, and Norway; Northerly or North-Easterly in Sweden, and Finland. Calm or variable over Austria, Italy, and the south of France. South Westerly over the Spanish Peninsula. Subsequently veering to the Westward on many parts of our western coasts, and increasing to a gale.

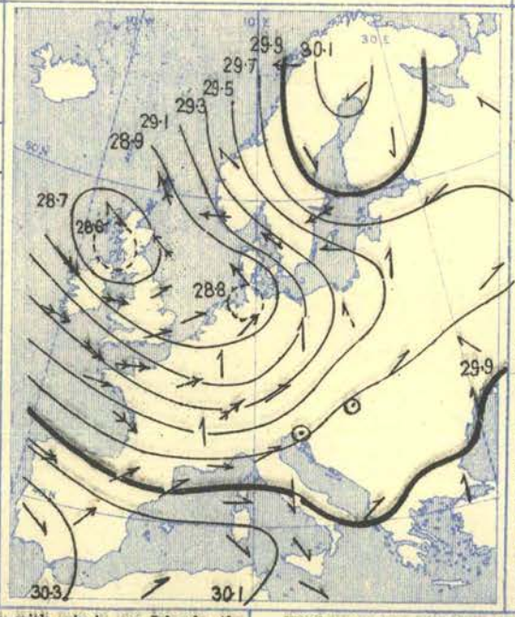
*Barometer* highest, 30·2 ins. and upwards in an anticyclone over the southern part of the Spanish Peninsula; 30·1 ins. and upwards in two other systems, one lying over Lapland, and the other over the Black Sea and the south of Russia. Lowest, 29·0 ins. and less in a large depression lying to the westward of our Islands. Depression subsequently advancing eastwards, and barometer in north of Ireland falling in evening below 28·7 ins.

## Monday, 2nd January.

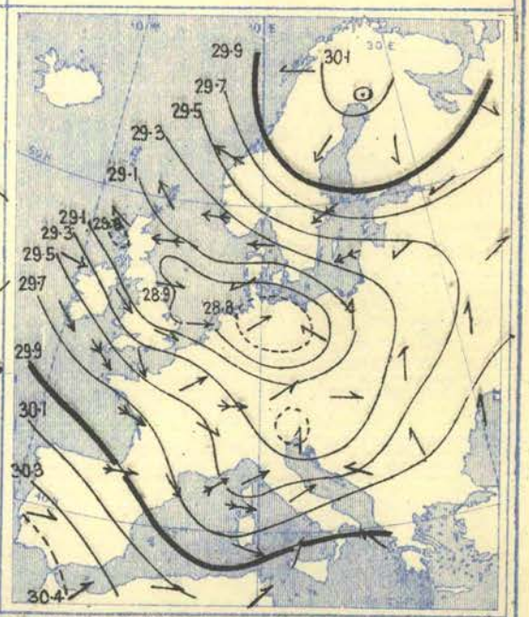
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy over the greater part of Europe, with rain in our Islands, the Netherlands and the north of France as well as at Florence and Malta; snow falling at Parsonstown, Cape Gris Nez, Swinemunde, Skagen and Karlstad. Fine in the north and east of England and also over the northern parts of Scandinavia. Rain or snow falling during day in nearly all parts of Europe. Thunder and lightning occurring at Jersey and Rochefort and lightning only at Hurst Castle and Dungeness.

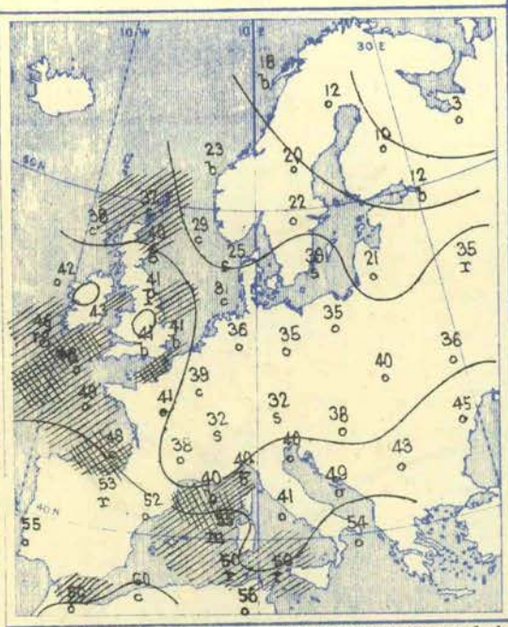
*Temperature* risen in most places. Morning readings highest, 59° at Bilbao and Corunna, and 57° at Biarritz and Leghorn; above 50° at the Mediterranean and Spanish coast stations generally, and also in the west of France. Lowest, −4° Fahr. at Haparanda, +6° at Archangel and Kuopio, and 9° at Uleaborg; below the freezing point over northern and eastern Europe generally, and very little above it in the central parts of the United Kingdom. Daily maxima below 45° in all but the extreme south-western parts of our Islands; thermometer exceeding 55° over southern Europe generally, and reaching 66° at Palermo. Ground frost occurring over the United Kingdom at night.

*Wind* strong to a gale from the Westward or North-Westward on the west coasts of our Islands and France; light to moderate from the South-Westward over the eastern and central parts of England and also over the Netherlands and Germany; strong to a gale from the Eastward or South-Eastward over Denmark, the south of Scandinavia and the north of Scotland. North-Easterly in Finland, but Southerly or South-Westerly over the southern parts of Russia. Calm in Austria; variable in Italy. Subsequently increasing to a strong gale from the Westward or North-Westward over nearly the whole of Ireland, England and France.

*Barometer* highest, 30·3 ins. and upwards in an anticyclone lying over the south-west of Spain; 30·1 ins. and upwards in another system over the north of Scandinavia. Lowest, 28·8 ins. and less in a well-marked depression with its centre over the west of Scotland; 28·8 ins. and less in another disturbance with its centre near Heligoland. Former disturbance subsequently moving northwards and partially filling up; latter system passing in an east-south-easterly direction across Germany.

## Tuesday, 3rd January.

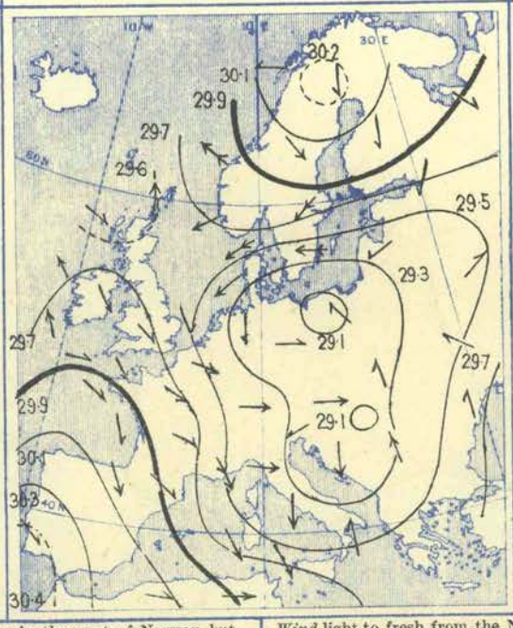
### Temperature and Weather. 8 a.m.

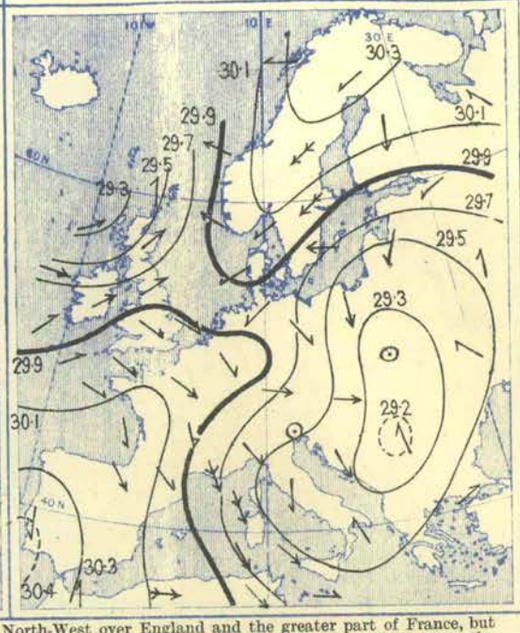


*Weather* in morning fine at many of the English stations and also in the west of Norway, but cloudy and unsettled in nearly all other parts of Europe. Rain falling in the south of Ireland, as well as in the extreme south of France; at Cagliari and Palermo, and at Buda Pesth, and St. Petersburg, snow reported at Skagen, Wisby, and Memel, and also at Munich. A little rain falling later in the west and north of our Islands generally, as well as in many parts of the Continent.

*Temperature* risen over England and Ireland, and also in the eastern and central parts of the Continent, but fallen elsewhere. Morning readings highest, 60° at Nemours, Oran, and Algiers, and 56° at La Calle and Tunis; above 50° at several of the Mediterranean and Spanish coast stations. Lowest, 3° at Archangel, 10° at Kuopio, and 12° at Haparanda and St. Petersburg; below the freezing point over northern Europe generally, and also over central Scotland. Rising during day to 50° and upwards at several of our own western stations, and also in the west of France; exceeding 55° over southern Europe as a whole, and reaching 63° at Palermo.

### Barometer and Wind. 8 a.m. and 6 p.m.



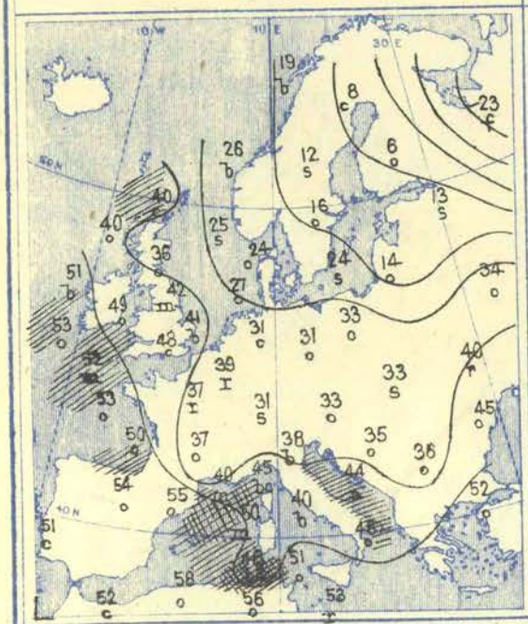


*Wind* light to fresh from the North-West over England and the greater part of France, but strong to a gale from the same quarter in the extreme south of France, and also over the western parts of the Mediterranean. Rather variable in Italy, but chiefly Northerly or North-Westerly; Southerly over the southern parts of Russia; Easterly or North-Easterly over northern Europe generally, with a gale in Denmark and the south of Scandinavia. Southerly or South-Easterly in Ireland and the north and east of Scotland, but North-Westerly in the west of Scotland. Subsequently backing to the South-Westward over the greater part of England.

*Barometer* highest, 30·4 ins. and upwards in an anticyclone lying to the south-westward of the Spanish Peninsula; 30·1 ins. and upwards in another system over the north of Scandinavia. Lowest, 29·2 ins. and less in a large and complex depression over eastern Germany and Austria; 29·6 ins. and less in a shallow disturbance over the north of Scotland. Depression over central Europe subsequently moving southwards; new disturbance moving later in a north-north-easterly direction along our extreme western coasts.

## Wednesday, 4th January.

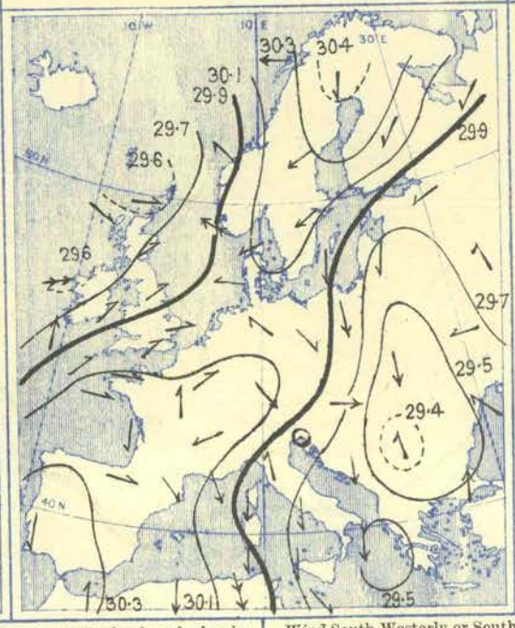
### Temperature and Weather. 8 a.m.

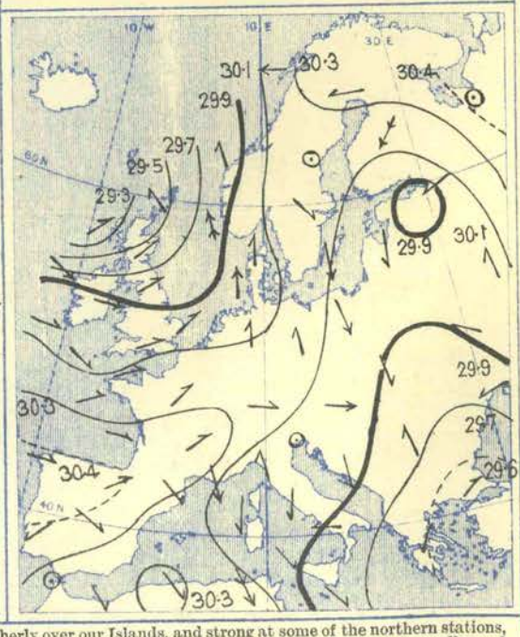


*Weather* in morning fine over the eastern, southern and central parts of England and also in the west of Norway and in some parts of Italy. Cloudy or dull in most other places, with snow at several of the Scandinavian stations and also at St. Petersburg and Munich. Rain falling later over western and central Europe generally, and considerable quantities of snow in many parts of Scandinavia and northern Russia.

*Temperature* risen considerably over Ireland and England; fallen at most of the Continental stations. Morning readings highest, 58° at Algiers, 56° at La Calle, 55° at Barcelona, 54° at Biarritz; above 50° at several of the Mediterranean and Spanish stations. Lowest, −23° Fahr. at Archangel, 6° at Kuopio, 8° at Helsingfors, and 10° at Hangö; below the freezing point over northern Europe generally. Lowest in our Islands, 31° at Loughborough and Cambridge, and 35° at Parsonstown. Rising during day to 50° and upwards over the greater part of our Islands and France; exceeding 55° over southern Europe generally, and reaching 64° at Barcelona.

### Barometer and Wind. 8 a.m. and 6 p.m.



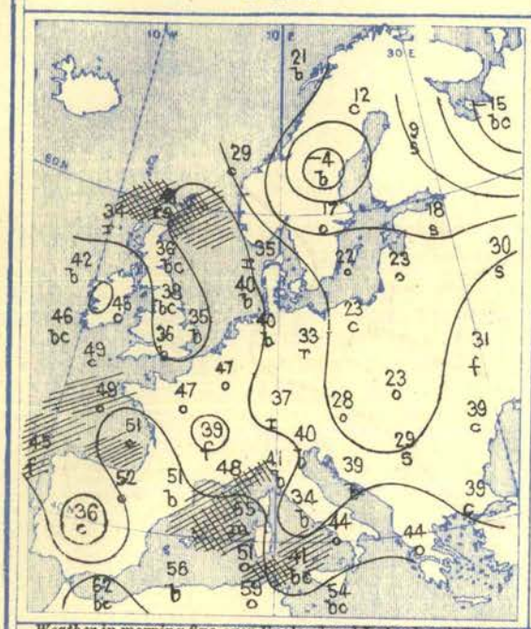


*Wind* South-Westerly or Southerly over our Islands, and strong at some of the northern stations, with a gale at Belnaullet; Easterly and North-Easterly over northern Europe generally, and blowing a gale at Skudesnaes and Wisby; rather variable over France, but Northerly and North-Westerly over southern Europe and blowing strongly or with the force of a gale at several Mediterranean stations. Subsequently veering to the Westward on our north-west coasts and increasing to a fresh or strong gale in many parts of Scotland.

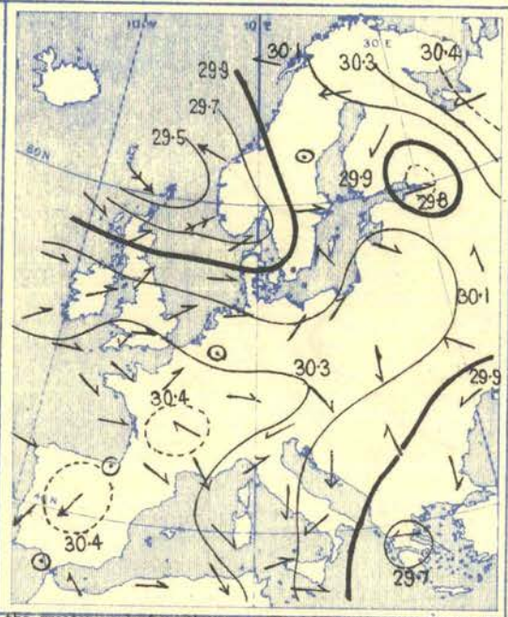
*Barometer* highest, 30·4 ins. at Haparanda and 30·3 ins. and upwards in an anticyclone lying over Spain and Portugal. Lowest, 29·3 ins. and less in a somewhat complex depression over southern Russia and the Balkan Peninsula, and 29·6 ins. and less in two depressions, one lying off the north of Scotland and the other off the west of Ireland. The low pressures in the north-west moving north-eastwards later, and barometer rising on all our western and north-western coasts.

## Thursday, 5th January.

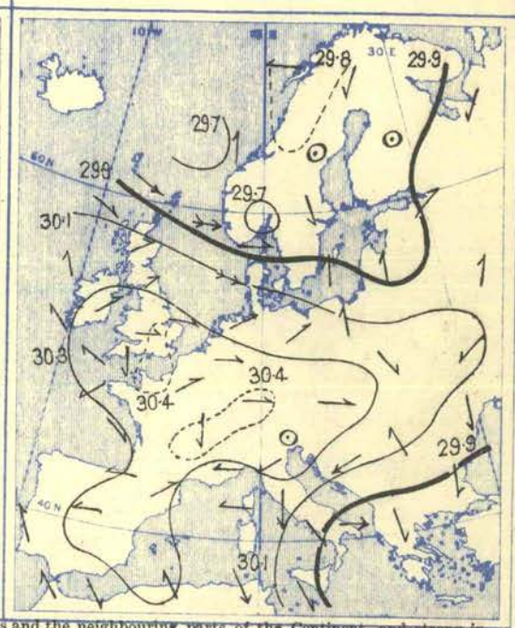
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over England and Ireland and also over the greater part of southern Europe. Cloudy or dull elsewhere, with rain or passing showers in many parts of Scotland as well as at some of the Danish and German stations; snow falling at Kuopio and Karlstad and also at Hermanstadt. Rain falling later over Ireland (heavily at Valencia) and snow in Sweden and Russia. Aurora seen at Wick.

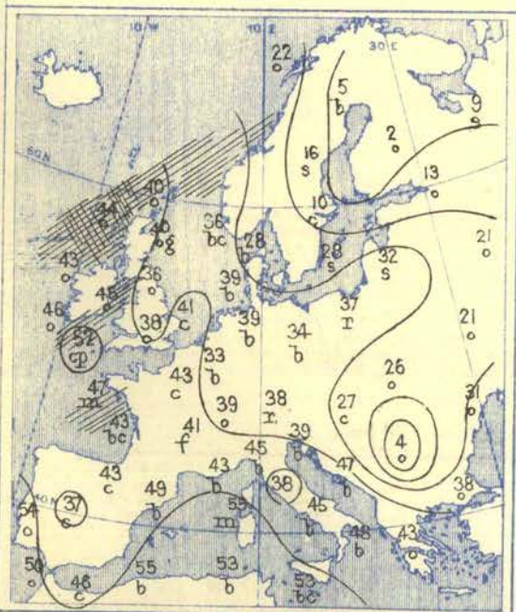
*Temperature* fallen several degrees in our Islands and to a less extent over the southern and south-eastern parts of the Continent, risen in most other localities. Morning readings highest, 62° at Oran, and 59° at La Calle; above 50° at most of the Mediterranean and Spanish coast stations as well as in the west of France. Lowest, −15° Fahr. at Archangel, −4° at Hernösand, +8° at Hangö, and 9° at Kuopio; below the freezing point over northern and eastern Europe generally, and also over central England. Rising during day to between 45° and 50° over England and Ireland generally, and reaching 55° at Scilly, exceeding 55° in many parts of southern Europe and reaching 66° at San Fernando.

*Wind* Westerly over our Islands and the neighbouring parts of the Continent, and strong in force at several of our northern stations, with a whole gale at Sumburgh Head; moderate to strong from the Eastward at most of the Scandinavian stations. Chiefly North-Westerly in the south of France and Northerly or North-Easterly over Italy and the Spanish Peninsula. Light from the North-Eastward over northern Russia, but from the Southward or South-Eastward in the central and southern parts of that country. Subsequently backing to the Southward or South-Eastward in Ireland and increasing to a gale at night.

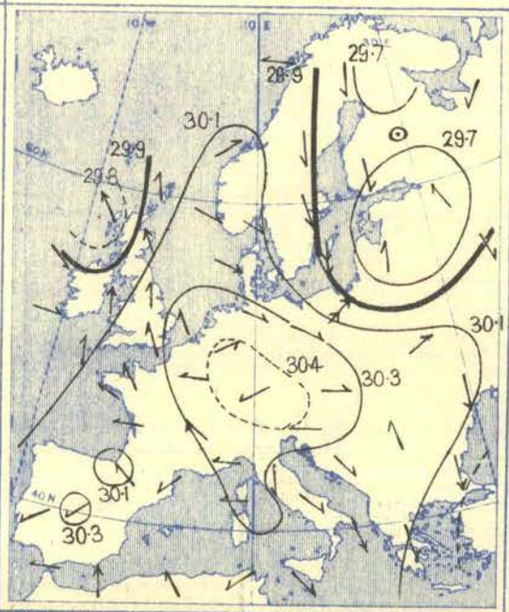
*Barometer* highest, 30·4 ins. over the central parts of France and Spain; 30·1 ins. and upwards in an anticyclone lying over the greater part of central and southern Europe, and extending northwards over England and Ireland. Lowest, 29·4 ins. and less in a depression with its centre a little to the north-eastward of the Shetlands; 29·8 ins. and less in a small disturbance near St. Petersburg and also in a large area covering the greater part of south-eastern Europe. Depression near the Shetlands subsequently moving north-eastwards, but new disturbance approaching our own western coasts.

## Friday, 6th January.

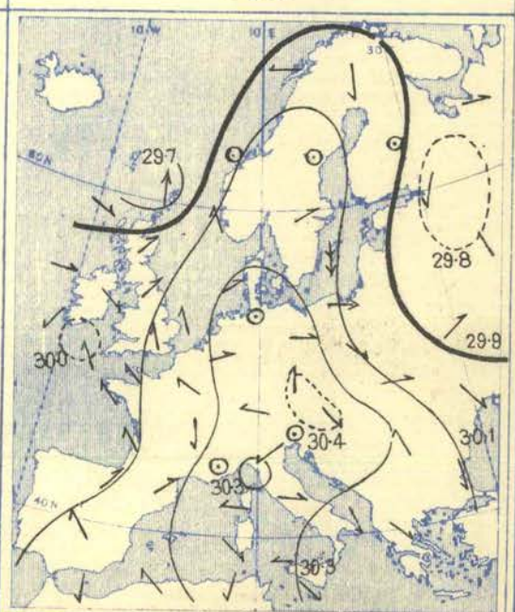
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over the United Kingdom generally, with rain at many of our western and southern stations. Fine over the western and southern parts of the Continent as a whole, but cloudy over the Spanish Peninsula. Dull over Sweden, Russia, Austria and eastern Germany, with rain at Neufahrwasser, and snow at Hernösand, Wisby and Riga. A little rain falling later in nearly all parts of the United Kingdom, and weather becoming cloudy in neighbouring parts of the Continent.

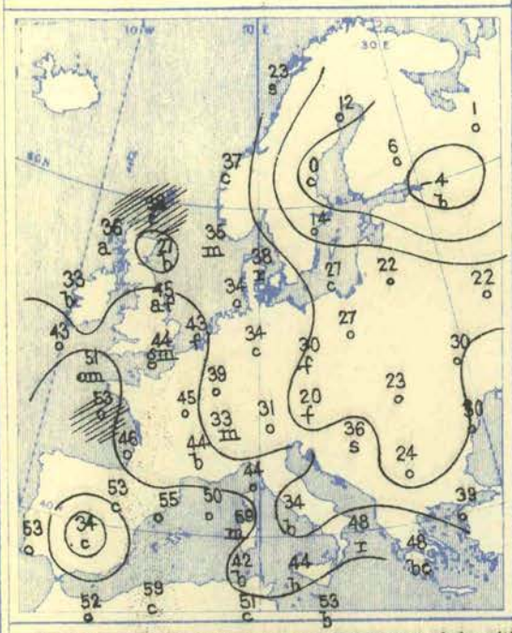
*Temperature* risen in our Islands and also in Germany, Austria and Italy, fallen in most other countries. Morning readings highest, (1) 55° at Algiers, 54° at Lisbon, and 53° at La Calle and Malta; (2) 52° at Scilly. Lowest, 2° at Kuopio, 5° at Haparanda and 8° at Ulcaborg; considerably below the freezing point over northern and eastern Europe generally, and very little above it over central England. Rising during day to between 45° and 50° in many parts of the United Kingdom, and to 54° at Scilly. Exceeding 55° in many parts of southern Europe, and reaching 63° at Cagliari.

*Wind* Southerly on most parts of our own western and northern coasts, with a gale in the extreme north-west, but Westerly in the west of Ireland. Light to moderate from the South-Eastward over the greater part of England and France; Westerly or North-Westerly over Denmark, Germany and the south of Norway, Northerly over Sweden and northern Russia, with a whole gale at Wisby. Calm or variable in Austria, Northerly or North-Westerly over southern Italy, North-Easterly over the Spanish Peninsula. Subsequently increasing to a gale from the Southward in the north and east of Scotland, but wind subsiding on our extreme north-west coasts.

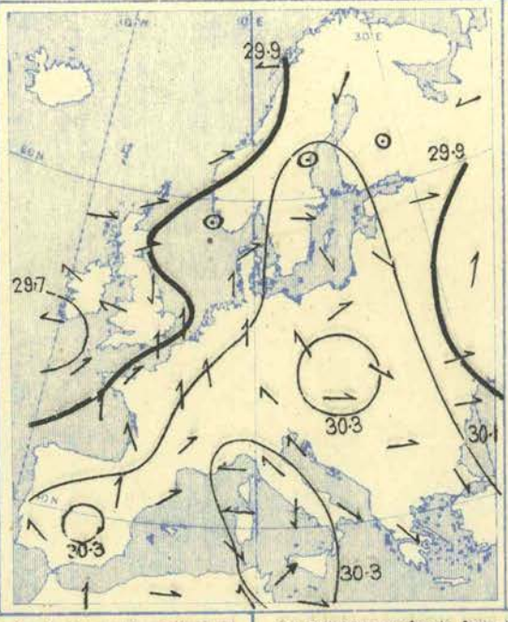
*Barometer* highest, 30·4 ins. and upwards over Belgium and western and southern Germany; 30·2 ins. and upwards in an anticyclone covering nearly the whole of central and southern Europe, and extending over the greater part of England. Lowest, 29·7 ins. and less in a depression over the Baltic Provinces and the Gulf of Finland; 29·8 ins. and less in another disturbance lying off the west of Scotland. Latter disturbance subsequently travelling north-eastwards, but shallow depression appearing off our south-west coasts.

## Saturday, 7th January.

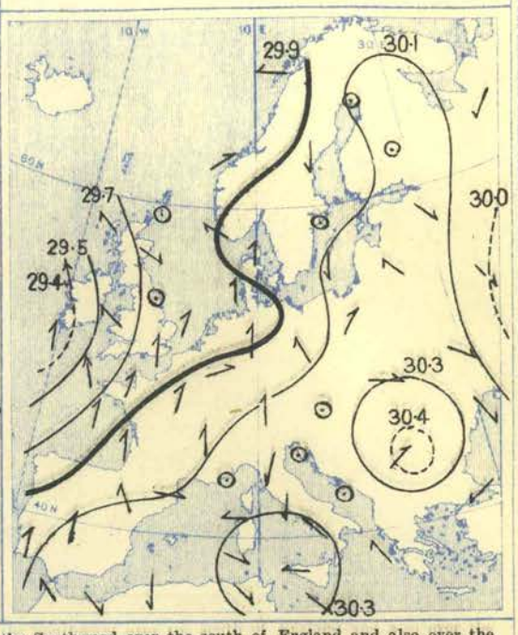
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over Europe as a whole, with fog in the north of England and the south of Scotland as well as in many parts of Germany, and slight rain at some of our own southern stations. Rain falling also at Faerder and Skagen and at Brindisi, and snow at Bodö, Karlstad and Vienna. Fine in the northern parts of Ireland and Scotland as well as over the greater part of Italy, Greece and the Mediterranean. Rain falling later over north-western Europe generally, but amounts mostly slight.

*Temperature* fallen in the west and north of our Islands and also in Denmark, Germany and Italy; risen elsewhere. Morning readings highest, 59° at Algiers, 55° at Barcelona and Sanguinaire, and 54° at Lorient. Lowest, −4° Fahr. at St. Petersburg, 0° zero at Hernösand, +1° at Archangel, and 6° at Kuopio; below the freezing point over northern, eastern and central Europe generally, and also in the eastern and central parts of Scotland. Rising during day to 50° and upwards at most of our own western and southern stations, and to 55° at Scilly and Jersey; exceeding 55° in the west of France and most parts of southern Europe, and reaching 66° at San Fernando.

*Wind* light to moderate from the Southward over the south of England and also over the Netherlands, Denmark and the greater part of France; Easterly or South-Easterly over Ireland and the north of England; South-Westerly in the north of Scotland. Northerly or North-Westerly over the south of Sweden and the west and south of Russia; Westerly in Austria; variable in Italy; Easterly over the Spanish Peninsula. Subsequently freshening from the Southward or South-Eastward on our own western coasts; no important change occurring elsewhere.

*Barometer* highest, 30·3 ins. and upwards over central Spain, over Switzerland, Italy and the neighbouring parts of the Mediterranean, and over Austria and eastern Germany; 30·1 ins. and upwards in an anticyclone extending from central and southern Europe over the Baltic and the greater part of Sweden. Lowest, 29·7 ins. and less in a depression off our own south-west coasts; 29·8 ins. and less in another disturbance over the southern parts of Russia. Depression in south-west moving northwards later and becoming somewhat deeper.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟿ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and O = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During the earlier half of the week two high pressure systems were in existence—one over the extreme northern, and the other over the south-western parts of Europe. Over all the western and central countries the weather was affected in the first instance by a deep depression, the centre of which appeared off our own extreme north-western coasts, and by a secondary system which formed over the southern parts of the North Sea. Strong winds or gales were experienced over nearly the whole of Europe—from the Eastward (South-East to North-East) in all the more northern countries, and from the Westward or North-Westward in the more southern regions; the weather being very changeable, with rain and snow in most districts. After the 2nd the depression off our north-west coasts moved northwards and partially filled up, while the secondary system travelled south-eastwards across central Europe, but on the 3rd and 4th two new disturbances moved northwards along our extreme western coasts, and occasioned gales in some parts of Ireland and Scotland.

The northern high-pressure area now gave way, while the anticyclone in the south-west moved eastwards and also spread out over central Europe. A decided improvement in the weather was therefore reported over the Continent, and some improvement over the eastern and southern parts of the United Kingdom. On our western and northern coasts, however, the conditions were still influenced by cyclonic systems which advanced in quick succession from the Atlantic, and which travelled in a north-north-easterly direction, each disturbance producing strong winds or gales from the Southward, and general, though as a rule, not heavy, falls of rain.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 2.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 6·0 | ? | 14 | ? | WESTBOURNE (Emsworth) | 14·7* | + 2·7 | 27* | + 5 |
| STRATHPEFFER SPA | 7·4 | + 0·6 | 16 | + 1 | WATERGATE (Emsworth) | | | | |
| EDINBURGH | 3·6 | − 2·2 | 7 | − 7 | BRIGHTON | 13·6 | + 2·1 | 25 | + 5 |
| MORPETH | 6·9 | ? | 14 | ? | EASTBOURNE | 14·0 | + 1·6 | 25 | + 2 |
| NEWCASTLE-ON-TYNE | 5·0 | ? | 10 | ? | VENTNOR HOSPITAL | 9·4 | ? | 17 | ? |
| OSWALDKIRK (Yorkshire) | 5·0 | − 3·6 | 10 | − 6 | SOUTHPORT | 6·3 | ? | 12 | ? |
| HOLLESLEY BAY | 15·0 | ? | 28 | ? | COLWYN BAY | 9·2 | ? | 17 | ? |
| SHEFFIELD | 7·2 | ? | 14 | ? | TENBY | 8·4 | − 4·7 | 16 | − 6 |
| WORKSOP | 4·0 | − 3·5 | 8 | − 8 | NEWQUAY | 8·0 | − 3·0 | 14 | − 7 |
| THURCASTON (Leicestershire) | 9·9 | + 1·9 | 19 | + 4 | TORQUAY | 9·3* | − 4·2 | 18* | − 5 |
| PLUMSTEAD COMMON | 2·8 | ? | 5 | ? | GUERNSEY | 6·8* | − 3·4 | 12* | − 6 |
| MARGATE | 13·6 | + 3·8 | 25 | + 8 | | | | | |

* The values at Westbourne, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD., LITH., 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL XVI. NO. 2.] *Third Series.* WEEK ENDING SATURDAY, JANUARY 14TH, 1899. [*Price 6d.* *Annual Subscription post paid* £1 10s. 0d.

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 8.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 53 | 28 | 43·4 | 35·3 | 39·5 | 2 above | 4 | − 2 | 25 | −18 | 5 | − 6 | 58 | − 27 |
| | 1. SCOTLAND, EAST | 51 | 25 | 43·0 | 33·0 | 38·2 | 2 above | 3 | − 4 | 34 | −11 | 3 | − 10 | 76 | − 12 |
| | 2. ENGLAND, N.E. | 50 | 31 | 45·4 | 37·1 | 41·4 | 4 above | 10 | + 4 | 21 | −21 | 13 | + 1 | 53 | − 28 |
| | 3. ENGLAND, EAST | 54 | 32 | 48·2 | 38·0 | 43·3 | 6 above | 26 | +20 | 11 | −37 | 36 | + 23 | 44 | − 49 |
| | 4. MIDLAND COUNTIES | 54 | 30 | 48·1 | 37·5 | 43·0 | 6 above | 26 | +18 | 13 | −34 | 35 | + 19 | 49 | − 43 |
| | 5. ENGLAND SOUTH | 56 | 32 | 51·3 | 41·4 | 46·6 | 8 above | 35 | +25 | 2 | −37 | 59 | + 38 | 16 | − 60 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 53 | 30 | 45·4 | 37·9 | 41·8 | 3 above | 10 | + 1 | 18 | −14 | 16 | − 2 | 46 | − 17 |
| | 7. ENGLAND, N.W. | 55 | 33 | 47·9 | 39·4 | 43·8 | 5 above | 24 | +17 | 7 | −27 | 35 | + 20 | 31 | − 36 |
| | 8. ENGLAND, S.W. | 56 | 30 | 51·4 | 41·6 | 46·7 | 6 above | 35 | +22 | 1 | −27 | 63 | + 36 | 12 | − 43 |
| | 9. IRELAND, NORTH | 54 | 25 | 46·0 | 36·7 | 41·5 | 2 above | 11 | − 1 | 22 | − 7 | 21 | − 2 | 57 | − 0 |
| | 10. IRELAND, SOUTH | 55 | 28 | 49·0 | 37·5 | 43·5 | 2 above | 29 | +11 | 13 | −10 | 59 | + 24 | 30 | − 16 |
| | —CHANNEL ISLANDS— | 57 | 41 | 54·0 | 45·5 | 49·9 | 6 above | 55 | +34 | 0 | −13 | 100 | + 56 | 0 | − 24 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 8.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 6 | 13 | 0 (average) | 11 | + 1 | 2·1 | − 0·5 | 6 | 0 | 12 | 0 | 13 | + 2 | 12 | + 2 |
| | 1. SCOTLAND, EAST | 6 | 7 | 1 more | 12 | + 5 | 1·4 | + 0·1 | 8 | + 1 | 15 | 0 | 13 | − 2 | 13 | − 2 |
| | 2. ENGLAND, N.E. | 4 | 5 | 1 more | 9 | + 1 | 0·9 | 0·0 | 8 | − 1 | 14 | − 3 | 13 | − 5 | 11 | − 5 |
| | 3. ENGLAND, EAST | 5 | 8 | 4 more | 10 | + 2 | 1·2 | + 0·3 | 19 | + 8 | 35 | +14 | 33 | + 10 | 28 | + 9 |
| | 4. MIDLAND COUNTIES | 6 | 11 | 6 more | 11 | + 4 | 1·6 | + 0·6 | 11 | + 1 | 20 | + 2 | 19 | 0 | 18 | 0 |
| | 5. ENGLAND, SOUTH | 5 | 10 | 4 more | 10 | + 3 | 1·5 | + 0·3 | 17 | + 7 | 31 | +12 | 28 | + 8 | 27 | + 7 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 7 | 18 | 6 more | 14 | + 6 | 3·1 | + 0·6 | 6 | − 1 | 12 | − 3 | 9 | − 6 | 9 | − 6 |
| | 7. ENGLAND, N.W. | 6 | 11 | 4 more | 12 | + 5 | 1·9 | + 0·5 | 8 | − 1 | 15 | − 2 | 14 | − 3 | 13 | − 3 |
| | 8. ENGLAND, S.W. | 6 | 24 | 15 more | 12 | + 4 | 3·6 | + 1·8 | 5 | − 7 | 9 | −11 | 12 | − 11 | 11 | −10 |
| | 9. IRELAND, NORTH | 7 | 8 | 1 less | 13 | + 4 | 1·8 | + 0·1 | 13 | + 3 | 25 | + 7 | 16 | − 3 | 15 | − 3 |
| | 10. IRELAND, SOUTH | 7 | 19 | 10 more | 14 | + 6 | 3·1 | + 1·3 | 13 | + 1 | 23 | + 1 | 19 | − 5 | 18 | − 5 |
| | — CHANNEL ISLANDS— | 6 | 16 | 8 more | 12 | + 3 | 3·0 | + 1·4 | 8 | − 3 | 13 | − 4 | 15 | − 9 | 15 | − 7 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was very changeable and rainy over the whole Kingdom, but several fine bright intervals were experienced over the southern and eastern parts of England, as well as over Ireland.

*Temperature* was again above the mean, the excess ranging from 2° in Scotland N. and E. and over Ireland to as much as 6° in England E., the Midland Counties, England S.W., and the Channel Islands, and 8° in England S. The highest of the maxima were registered either on the 8th or 12th, and ranged from 57° in the Channel Islands and 56° in England S. and S.W. to 50° in England N.E. The lowest of the minima, which were recorded on the 8th in Scotland and during the middle of the week elsewhere, varied from 25° in Scotland E. and Ireland N. to 33° in England N.W. and 41° in the Channel Islands.

*Rainfall* was more than the mean very generally, but only just equal to it in Scotland N. and slightly less in Ireland N. Over the southern half of the Kingdom the fall was about twice as much as the normal.

*Bright Sunshine* exceeded the mean over Ireland, in England S. and E. and the Midland Counties, and just equalled it in Scotland N. and E. In all other districts however, there was a deficiency. The percentage of the possible duration ranged from 35 in England E. and 31 in England S. to between 23 and 25 in Ireland and to 9 in England S.W.

*Barometer and Wind.*—During the earlier days of the week depressions moving northwards continued to skirt our extreme western and north-western coasts, causing very strong Southerly winds or slight gales in Ireland and the western parts of Great Britain, and moderate to fresh South-Westerly to Westerly breezes elsewhere ; some secondaries passed more directly over the country. During the night of Wednesday, however, a very deep depression appeared suddenly off the north of Ireland and, travelling rapidly to the eastward, passed away to the Baltic on Friday. This system brought severe South-Westerly to Westerly gales to all parts of Ireland and England and the north of France ; over Scotland, however, the force of the wind continued moderate, but Aberdeen felt a Northerly gale in the rear of the depression. Towards the end of the week the barometer again fell in the west, and shallow secondary disturbances passed eastwards over the southern parts of Ireland and England.

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613 | 70 1 | 99.

# II.—DATA from which the SUMMARY on page 7 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 47 | 34 | 43·6 | 35·9 | 39·9 | + 0·9 | 4 | 24 | 7 | 1·48 | + 0·58 | * | * | * | * |
| | Stornoway | 49 | 32 | 44·1 | 35·6 | 40·0 | + 1·6 | 6 | 25 | 7 | 1·38 | + 0·18 | 5·8 | 0·0 | 12 | 0 |
| | Wick | 47 | 32 | 42·9 | 35·3 | 39·3 | + 1·9 | 3 | 25 | 5 | 0·60 | + 0·04 | * | * | * | * |
| | Lairg Ⓢ | 46 | 28 | 41·0 | 31·7 | 36·5 | + 0·3 | 0 | 39 | 4 | 0·96 | + 0·16 | * | * | * | * |
| | Glencarron Ⓢ | 52 | 32 | 43·2 | 34·2 | 38·9 | + 1·9 | 3 | 30 | 6 | 2·03 | − 0·25 | * | * | * | * |
| | Fort Augustus Ⓢ | 51 | 34 | 43·2 | 36·0 | 39·7 | + 1·5 | 3 | 23 | 6 | 1·12 | + 0·04 | 3·4 | + 0·6 | 7 | 0 |
| | Fort William Ⓢ | 53 | 35 | 46·0 | 38·1 | 42·2 | + 3·8 | 18 | 11 | 7 | 1·60 | − 0·58 | 0·3 | − 4·5 | 1 | −10 |
| 1. SCOTLAND E. | Nairn | 50 | 25 | 44·0 | 29·7 | 37·1 | 0·0 | 6 | 46 | 5 | 0·66 | + 0·20 | * | * | * | * |
| | Aberdeen | 46 | 27 | 42·6 | 34·1 | 38·5 | + 1·2 | 2 | 29 | 5 | 0·60 | + 0·06 | 10·9 | − 0·1 | 22 | 0 |
| | Braemar Ⓢ | 44 | 30 | 38·8 | 31·4 | 35·3 | + 1·1 | 0 | 47 | 6 | 0·36 | − 0·36 | 6·3† | + 2·7† | 13† | + 5† |
| | Ochtertyre Ⓢ | 46 | 31 | 42·3 | 34·3 | 38·5 | + 2·3 | 1 | 29 | 7 | 1·56 | + 0·46 | * | * | * | * |
| | Leith | 51 | 28 | 46·6 | 35·0 | 41·0 | + 2·3 | 13 | 29 | 5 | 0·62 | + 0·24 | * | * | * | * |
| | Marchmont Ⓢ | 45 | 32 | 43·7 | 33·7 | 38·9 | + 2·9 | 5 | 32 | 6 | 0·54 | − 0·05 | 8·5 | − 0·1 | 17 | 0 |
| 2. ENGLAND, N.E. | Alnwick Castle | 46 | 33 | 44·6 | 36·1 | 40·5 | + 3·2 | 7 | 24 | 6 | 0·65 | + 0·15 | * | * | * | * |
| | Durham | 47 | 32 | 44·9 | 36·3 | 40·8 | + 4·4 | 8 | 23 | 5 | 0·44 | − 0·04 | 9·7 | − 0·1 | 19 | 0 |
| | Shields | 48 | 34 | 45·9 | 37·6 | 41·9 | + 3·8 | 11 | 19 | 3 | 0·56 | + 0·16 | * | * | * | * |
| | Scarborough Ⓜ | 49 | 31 | 45·1 | 36·6 | 41·0 | + 2·9 | 9 | 22 | 3 | 0·50 | + 0·03 | 9·6 | ? | 18 | ? |
| | York | 50 | 35 | 46·6 | 37·4 | 42·2 | + 5·2 | 21 | 13 | 5 | 0·64 | + 0·24 | 1·7 | − 4·5 | 3 | − 8 |
| | Spurn Head | 50 | 35 | 45·1 | 38·4 | 41·9 | + 4·2 | 9 | 16 | 4 | 0·31 | 0·00 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 51 | 33 | 47·0 | 36·5 | 42·0 | + 5·8 | 14 | 15 | 2 | 1·04 | + 0·59 | 17·9 | + 8·4 | 33 | + 15 |
| | Yarmouth | 50 | 34 | 46·0 | 37·9 | 42·1 | + 5·0 | 18 | 11 | 5 | 0·69 | + 0·23 | * | * | * | * |
| | Geldeston | 53 | 35 | 48·8 | 38·0 | 43·6 | + 5·9 | 28 | 11 | 6 | 0·92 | + 0·57 | 19·2 | + 8·2 | 35 | + 15 |
| | Cambridge | 54 | 32 | 49·6 | 37·6 | 43·8 | + 7·0 | 31 | 12 | 4 | 1·03 | + 0·29 | 15·5 | + 5·4 | 28 | + 8 |
| | Felixstowe | 52 | 35 | 46·7 | 40·0 | 43·5 | + 5·5 | 19 | 6 | 4 | 0·58 | ? | 21·8† | ? | 40† | ? |
| | Rothamsted | 54 | 33 | 50·9 | 37·7 | 44·6 | + 8·0 | 36 | 12 | 7 | 0·79 | + 0·24 | 18·8 | + 9·0 | 34 | + 16 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 51 | 32 | 46·9 | 35·7 | 41·5 | + 4·6 | 14 | 27 | 6 | 0·62 | + 0·23 | * | * | * | * |
| | Loughborough | 54 | 35 | 48·9 | 39·0 | 44·2 | + 7·2 | 28 | 8 | 5 | 0·76 | + 0·32 | * | * | * | * |
| | Stamford (Duddington) | 52 | 32 | 47·9 | 36·6 | 42·5 | + 6·3 | 26 | 15 | 7 | 0·85 | + 0·45 | * | * | * | * |
| | Cheadle Ⓜ | 49 | 32 | 44·9 | 35·5 | 40·4 | + 4·2 | 8 | 26 | 5 | 0·97 | + 0·37 | * | * | * | * |
| | Shirley (near Solihull) | 51 | 32 | 47·4 | 37·8 | 42·8 | + 5·9 | 23 | 12 | 7 | 1·08 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 52 | 32 | 47·1 | 36·9 | 42·2 | + 5·0 | 23 | 14 | 6 | 1·55 | + 0·93 | 12·7 | + 2·9 | 24 | + 5 |
| | Hereford Ⓜ | 52 | 33 | 48·8 | 38·6 | 43·9 | + 5·9 | 28 | 10 | 7 | 1·46 | + 0·94 | * | * | * | * |
| | Cirencester | 53 | 30 | 50·0 | 37·3 | 43·9 | + 6·9 | 33 | 13 | 6 | 1·49 | + 0·84 | 9·0 | − 2·1 | 16 | − 4 |
| | Oxford | 53 | 35 | 50·9 | 39·7 | 45·5 | + 7·5 | 34 | 6 | 5 | 1·04 | + 0·58 | 18·7 | + 8·5 | 34 | + 15 |
| 5. ENGLAND, S. | London | 56 | 36 | 52·0 | 40·3 | 46·4 | + 7·8 | 38 | 5 | 4 | 1·04 | + 0·59 | 13·3† | + 7·9† | 24† | + 15† |
| | Cranley Ⓜ | 55 | 32 | 51·5 | 38·9 | 45·5 | + 7·1 | 38 | 9 | 4 | 0·99 | ? | * | * | * | * |
| | Dungeness | 52 | 37 | 50·4 | 42·9 | 46·8 | + 7·8 | 34 | 0 | 4 | 0·49 | − 0·04 | * | * | * | * |
| | Hastings (St. Leonards) | 53 | 37 | 51·3 | 41·6 | 46·6 | + 7·5 | 34 | 1 | 4 | 0·89 | + 0·29 | 18·1 | + 4·7 | 32 | + 8 |
| | Southampton | 55 | 36 | 52·1 | 41·5 | 47·0 | + 7·9 | 37 | 1 | 5 | 1·35 | + 0·65 | 15·3 | + 4·2 | 27 | + 7 |
| | Hurst Castle | 54 | 40 | 52·1 | 44·7 | 48·6 | + 8·6 | 46 | 0 | 5 | 0·84 | + 0·22 | * | * | * | * |
| | Shaftesbury Ⓜ | 53 | 33 | 49·8 | 39·7 | 45·0 | + 8·3 | 31 | 6 | 7 | 1·48 | + 0·78 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 53 | 35 | 45·9 | 38·1 | 42·2 | + 3·1 | 18 | 11 | 7 | 2·12 | + 0·17 | * | * | * | * |
| | Glasgow | 50 | 33 | 44·2 | 37·0 | 40·7 | + 2·7 | 6 | 20 | 7 | 1·70 | + 0·87 | 3·6 | − 0·9 | 7 | − 2 |
| | Ardrossan | 48 | 32 | 46·1 | 38·1 | 42·3 | + 2·5 | 18 | 11 | 7 | 0·81 | − 0·03 | * | * | * | * |
| | Glenlee Ⓢ | 48 | 30 | 44·0 | 35·9 | 40·1 | + 3·1 | 6 | 24 | 7 | 2·45 | + 0·91 | * | * | * | * |
| | Douglas (Isle of Man) | 49 | 38 | 46·9 | 40·2 | 43·7 | + 3·4 | 19 | 5 | 7 | 1·83 | + 0·85 | 8·7 | − 1·6 | 16 | − 4 |
| 7. ENGLAND, N.W. | Stonyhurst | 49 | 34 | 45·4 | 38·2 | 41·9 | + 4·7 | 10 | 16 | 6 | 1·11 | + 0·21 | 5·3 | − 2·7 | 10 | − 5 |
| | Blackpool Ⓜ | 51 | 33 | 48·6 | 39·9 | 44·4 | + 6·6 | 26 | 6 | 7 | 0·96 | + 0·34 | 6·5 | − 1·9 | 12 | − 2 |
| | Manchester (Prestwich) | 51 | 29 | 47·9 | 37·4 | 42·9 | + 5·7 | 26 | 13 | 5 | 0·88 | + 0·18 | 4·3 | ? | 8 | ? |
| | Liverpool Obsy. (Bidston) | 50 | 36 | 47·3 | 39·6 | 43·6 | + 4·7 | 21 | 7 | 5 | 0·47 | + 0·02 | * | * | * | * |
| | Llandudno Ⓜ | 55 | 34 | 48·9 | 39·7 | 44·5 | + 3·6 | 27 | 6 | 7 | 1·17 | + 0·57 | 10·8 | + 1·7 | 20 | + 3 |
| | Holyhead | 54 | 35 | 49·0 | 41·3 | 45·3 | + 3·4 | 26 | 2 | 7 | 1·88 | + 1·14 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 56 | 30 | 51·3 | 37·0 | 44·4 | + 6·7 | 38 | 14 | 6 | 2·13 | + 0·99 | * | * | * | * |
| | Pembroke | 53 | 40 | 51·7 | 43·6 | 47·8 | + 5·5 | 41 | 0 | 7 | 3·31 | + 2·49 | 2·3 | − 9·4 | 4 | −16 |
| | Clifton | 54 | 37 | 51·6 | 41·0 | 46·5 | + 7·3 | 36 | 3 | 6 | 2·19 | + 1·47 | * | * | * | * |
| | Arlington (N. Devon) | 52 | 34 | 50·3 | 40·0 | 45·4 | + 5·5 | 32 | 6 | 6 | 3·57 | + 2·53 | * | * | * | * |
| | Cullompton Ⓜ | 55 | 34 | 51·9 | 41·0 | 46·7 | + 7·5 | 37 | 3 | 6 | 2·12 | + 1·42 | 6·6 | − 2·8 | 12 | − 5 |
| | Falmouth | 54 | 39 | 51·1 | 44·2 | 47·8 | + 4·5 | 41 | 0 | 7 | 2·34 | + 1·14 | 4·2 | − 8·0 | 7 | −14 |
| | Plymouth | 54 | 37 | 51·1 | 42·7 | 47·1 | + 5·6 | 36 | 0 | 6 | 1·80 | + 0·96 | 4·4 | − 6·4 | 8 | −11 |
| | Prawle Point | 54 | 38 | 51·9 | 43·3 | 47·8 | + 6·5 | 41 | 0 | 6 | 1·69 | + 1·02 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 51 | 35 | 45·3 | 38·0 | 41·8 | + 0·7 | 9 | 17 | 6 | 0·62 | ? | * | * | * | * |
| | Londonderry | 53 | 33 | 46·0 | 37·3 | 41·8 | + 2·1 | 11 | 20 | 7 | 1·01 | + 0·13 | * | * | * | * |
| | Edenfel (Omagh) | 50 | 30 | 43·7 | 34·4 | 39·2 | + 1·8 | 5 | 29 | 7 | 0·88 | + 0·11 | * | * | * | * |
| | Belmullet | 54 | 33 | 47·7 | 38·6 | 43·3 | + 1·0 | 23 | 10 | 7 | 0·90 | − 0·30 | * | * | * | * |
| | Markree Castle | 53 | 31 | 47·0 | 36·1 | 41·8 | + 2·8 | 14 | 26 | 7 | 0·75 | − 0·14 | 13·6 | + 4·8 | 26 | + 9 |
| | Armagh | 51 | 25 | 46·2 | 35·2 | 40·9 | + 2·6 | 12 | 28 | 7 | 0·57 | − 0·09 | 12·4 | + 2·9 | 23 | + 5 |
| | Donaghadee | 52 | 32 | 46·4 | 37·0 | 41·9 | + 1·8 | 12 | 22 | 5 | 0·62 | 0·00 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND S. | Dublin | 53 | 36 | 48·5 | 39·6 | 44·2 | + 3·1 | 25 | 7 | 7 | 0·53 | + 0·04 | 14·6 | + 1·6 | 27 | + 3 |
| | Parsonstown | 53 | 31 | 47·9 | 33·6 | 41·0 | + 1·6 | 17 | 35 | 7 | 1·00 | + 0·33 | 14·2 | + 3·2 | 26 | + 5 |
| | Kilkenny | 53 | 31 | 47·9 | 36·3 | 42·3 | + 1·6 | 26 | 16 | 7 | 1·57 | + 0·82 | * | * | * | * |
| | Roche's Point | 54 | 36 | 50·4 | 40·6 | 45·7 | + 2·6 | 32 | 4 | 7 | 2·76 | + 1·58 | * | * | * | * |
| | Valencia | 54 | 35 | 49·4 | 40·0 | 44·9 | + 0·1 | 29 | 6 | 7 | 2·74 | + 1·32 | 8·6 | − 3·8 | 16 | − 6 |
| | Killarney | 55 | 28 | 50·0 | 35·3 | 42·9 | − 0·3 | 34 | 19 | 7 | 2·68 | ? | * | * | * | * |
| | Foynes | 54 | 34 | 48·8 | 37·1 | 43·2 | + 2·2 | 29 | 14 | 7 | 1·68 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 57 | 41 | 54·0 | 45·1 | 49·7 | + 4·0 | 54 | 0 | 7 | 1·66 | + 0·86 | 3·0 | ? | 5 | ? |
| | Jersey | 57 | 42 | 54·0 | 45·9 | 50·1 | + 8·1 | 57 | 0 | 5 | 1·46 | + 0·74 | 12·0 | − 3·0 | 20 | − 6 |

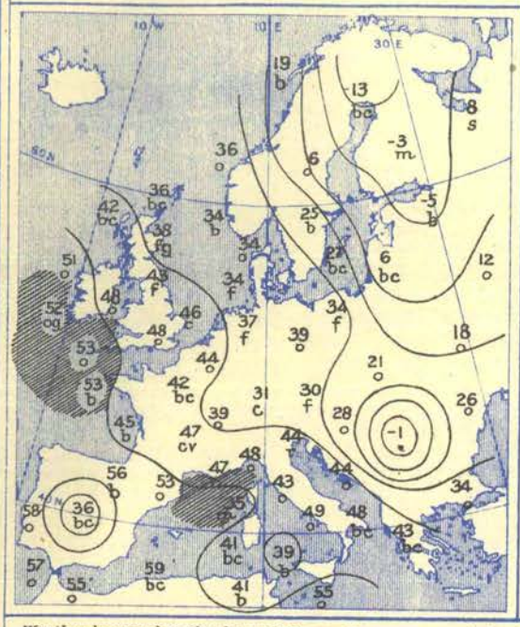
Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

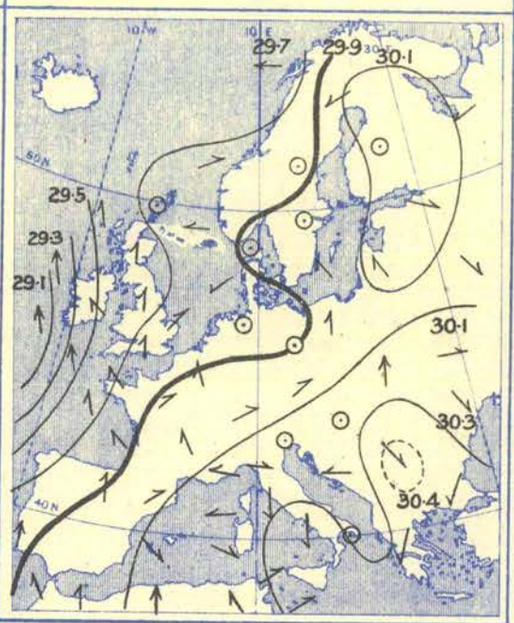
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

## Sunday, 8th January.

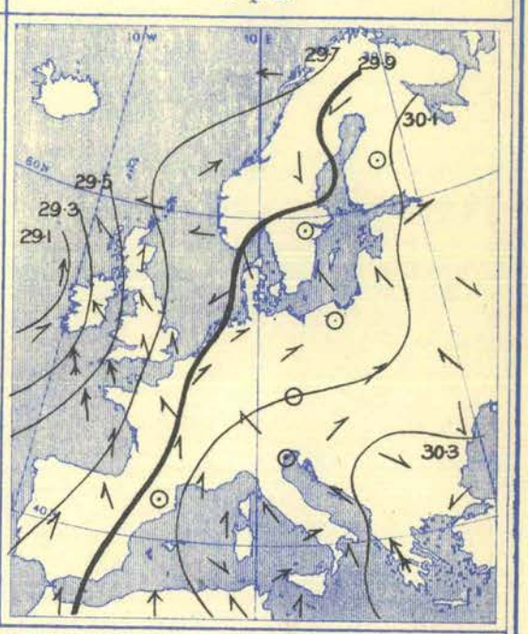
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over Europe as a whole, with fog at several of our own northern stations, as well as in many parts of Denmark, Germany, and Austria. Rain falling in the south of Ireland, and snow at Karlstad. Fine in the Shetlands and Hebrides, and at many of the Scandinavian stations, as well as over the greater part of France, southern Italy, and Greece. Rain falling later in the west and north of our Islands generally, and snow at several stations in Finland and Scandinavia.

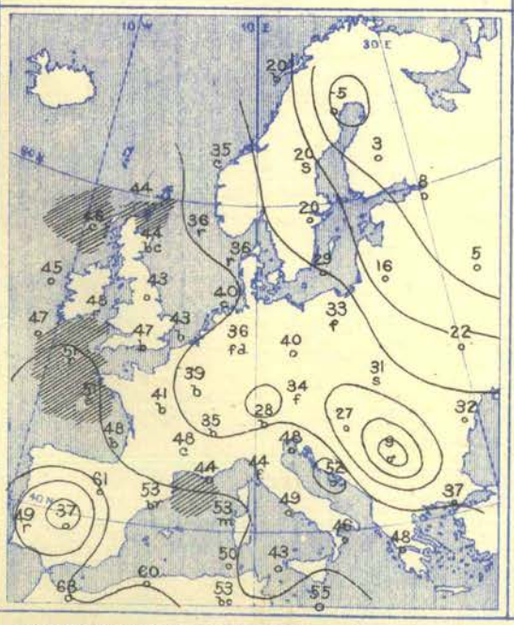
*Temperature* risen in most countries, but fallen in Norway and Russia. Morning readings highest, 59° at Algiers, 58° at Lisbon, and 56° at Biarritz; above 50° at most of the Mediterranean stations, and also on our own extreme west and south-west coasts. Lowest, (1) −13° Fahr. at Haparanda, −6° at Uleaborg, −5° at St. Petersburg; (2) −1° at Hermanstadt; below the freezing point over the northern and eastern parts of Europe generally, and also over central Scotland. Rising during day to 50° and upwards in many parts of the United Kingdom, and to 56° at Scilly and in London; exceeding 55° over southern Europe generally, and reaching 64° at Palermo.

*Wind* Southerly or South-Easterly over western Europe generally, and strong in force on many parts of our own western coasts, with a gale at Roche's Point. Light from the South-Westward in Germany, and from the Southward or South-Eastward over the Baltic; Easterly or North-Easterly in the extreme northern parts of Russia and Scandinavia; Northerly or North-Westerly over the central and southern parts of Russia; calm in Austria; variable in Italy. No important change occurring later.

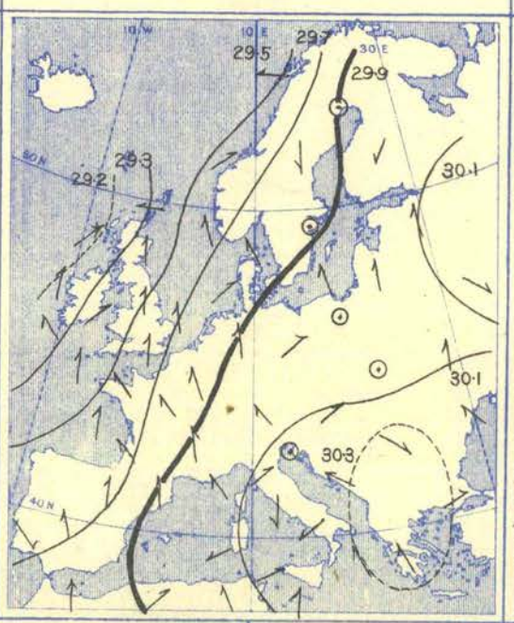
*Barometer* highest, 30·4 ins. and upwards over eastern Austria; 30·1 ins. and upwards in an anticyclone covering the eastern and most of the southern parts of the Continent. Lowest, 29·1 ins. and less in a depression lying off the south-west of Ireland; 29·6 ins. and less in another disturbance off the northern parts of the Norwegian coasts. Irish depression subsequently moving northwards, and barometer rising a little at some of our south-western stations.

## Monday, 9th January.

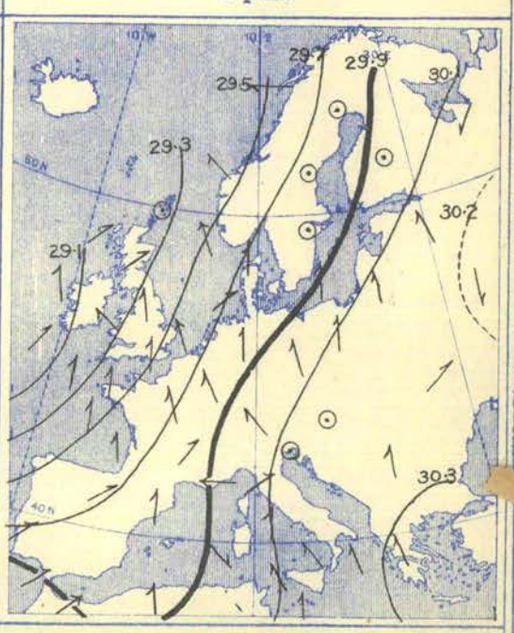
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the eastern and central parts of England, and also over France and the Netherlands. Cloudy or dull elsewhere, with rain in the south-west of England and also in the Shetlands and at Skudesnaes, Skagen, Breslau, Pesaro, and Lisbon; snow reported at Hangö and Lemberg, and fog in many parts of Germany and Austria. Rain falling later in the west and north of our Islands generally—heavily at Pembroke. Considerable quantities reported also over the southern parts of the Spanish Peninsula.

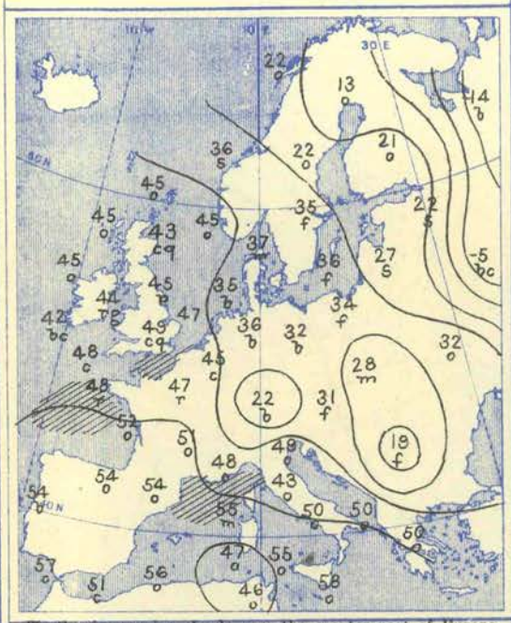
*Temperature* changed very irregularly. Morning readings highest, 63° at Nemours, 61° at Biarritz, and 60° at Algiers; above 50° at most of the Mediterranean stations and also in the west of France and at Scilly. Lowest, −6° Fahr. at Uleaborg, −5° at Haparanda, +3° at Kuopio and 5° at Moscow; below the freezing point over the greater part of northern, eastern and central Europe. Rising during day to 50° and upwards at most of our own central and southern stations; exceeding 55° over the west of France and the greater part of southern Europe, and reaching 64° at Palermo.

*Wind* light to moderate from the Southward or South-Eastward over western and northern Europe generally, but South-Westerly on some parts of our own western coasts. Variable over the northern parts of Sweden and Russia; South-Easterly in the south of Russia; South-Westerly in Austria; variable in Italy. No important change occurring over western Europe during day.

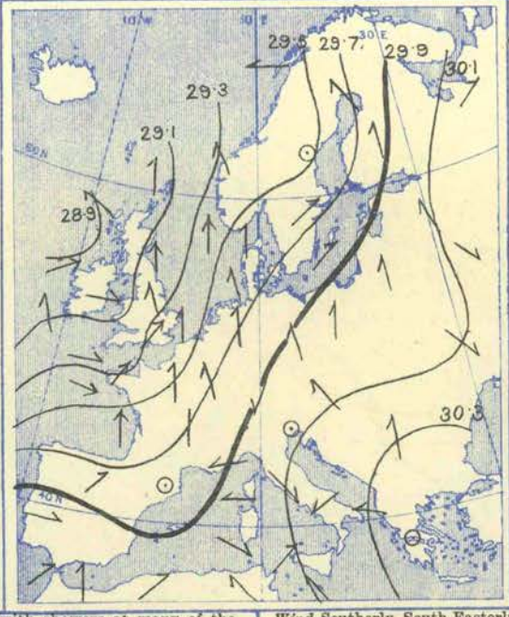
*Barometer* highest, 30·3 ins. and upwards over Greece and the neighbouring provinces; 30·0 ins. and upwards in an anticyclone covering the greater part of eastern and southern Europe. Lowest, 29·2 ins. and less in a depression lying off the north-west of Scotland. New disturbance appearing later off the west of Ireland and moving northwards.

## Tuesday, 10th January.

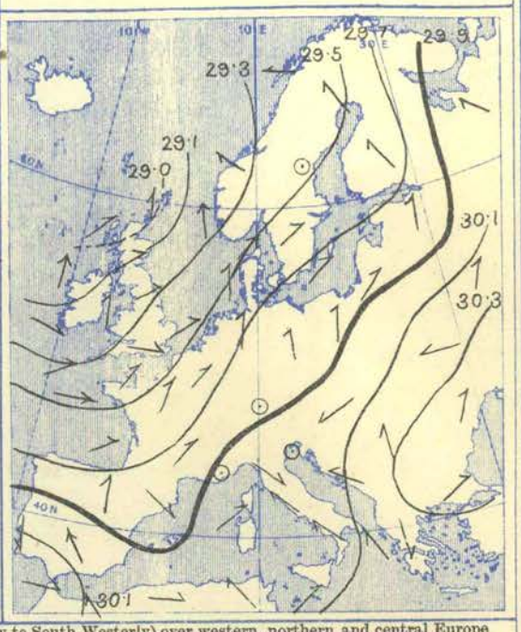
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy over the greater part of Europe, with showers at many of the English stations, steady rain over the north of France, and snow over the Baltic Provinces and the Gulf of Finland, as well as at Christiansund. Fog reported in many parts of Sweden, Denmark, Germany and Austria. Fine in the south of Ireland, and also in Holland, Denmark and western Germany. Rain falling during day in nearly all parts of western and southern Europe. Lightning seen at several of the French stations, thunder occurring at Nice, and a thunderstorm at Algiers.

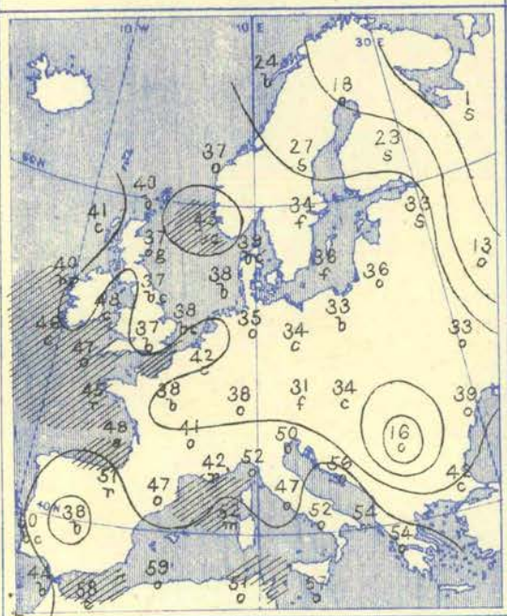
*Temperature* fallen in the west and north of our Islands, and also in Germany, risen in most other localities. Morning readings highest, 58° at Malta, 57° at San Fernandö, and 56° at Algiers; above 50° on the west coast of France. Lowest, −14° Fahr. at Archangel, −5° at Moscow, and +13° at Haparanda; below the freezing point over eastern and central Europe generally, and very little above it over central Ireland. Rising during day to 45° and upwards in all parts of our Islands, and to 50° and upwards in the south of England. Reaching 55° or more in the west of France and most parts of southern Europe, and touching 62° at Perpignan and Malta.

*Wind* Southerly South-Easterly to South-Westerly) over western, northern and central Europe generally, but Westerly over the south-west of England and the north-west of France, and also on the Portuguese coasts; fresh or strong in force at some of our own southern stations. Light from the North-Westward over central Russia; calm in Austria, variable but chiefly Northerly over Italy. Subsequently veering to the South-Westward over Great Britain; no important change occurring elsewhere.

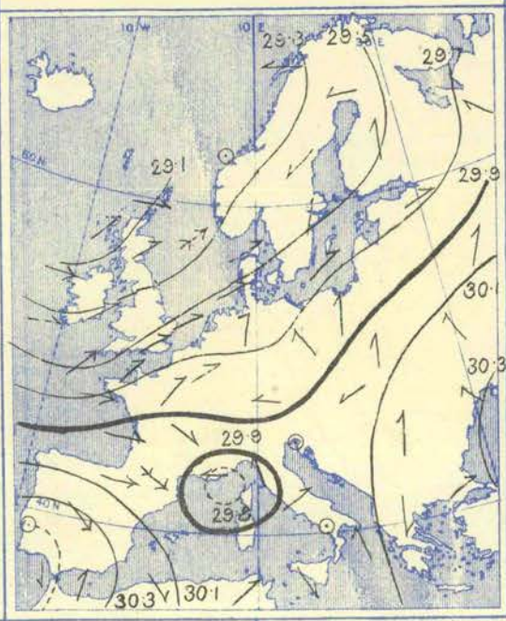
*Barometer* highest, 30·3 ins. and upwards over south-eastern Europe, 30·0 ins. and upwards in an anticyclone covering the eastern parts of the Continent generally, and also in another system over Morocco and the south of Spain. Lowest, 28·9 ins. and less in a depression off the west of Scotland. Depression subsequently moving north-eastwards, and shallow secondary disturbances passing in a similar direction across England.

## Wednesday, 11th January.

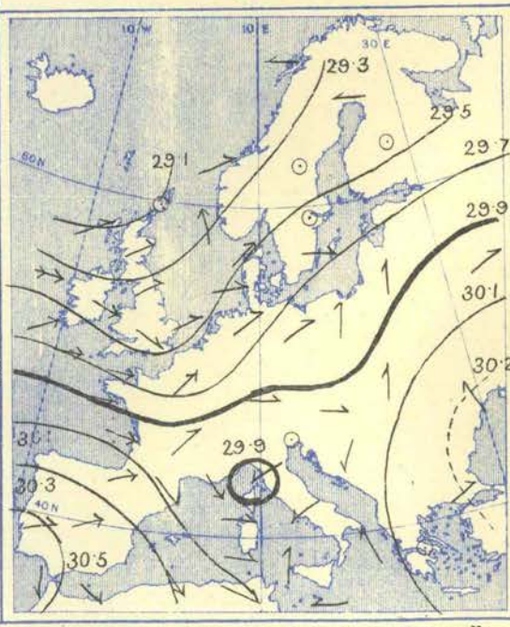
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the greater part of the United Kingdom, but dull in the east of Scotland, and squally and rainy in the south-west of England. Fine also over central France and the Spanish Peninsula, but cloudy or dull over the Continent, with fog in Austria and the south of Sweden, and rain in many parts of France; snow reported over northern Russia. Rain or snow later in nearly all parts of Europe—heavily in the western parts of our Islands and France; thunderstorms occurring at Belmullet and Scilly.

*Temperature* fallen in our Islands, France, and Spain; risen in most other countries. Morning readings highest, 59° at Algiers, 58° at Oran, and 57° at Malta; above 50° at the Mediterranean, Adriatic, and Spanish coast stations generally. Lowest, 1° at Archangel, 3° at Kharkov, 13° at Moscow, and 16° at Hermanstadt; below the freezing point in most parts of northern and eastern Europe, and very little above it in many parts of our Islands. Daily maxima below 45° on all but our western and southern coasts, but brisk rise spreading over our Islands from the westward at night. Rising during day to 55° and upwards in most parts of southern Europe, and to 60° and upwards over southern Italy.

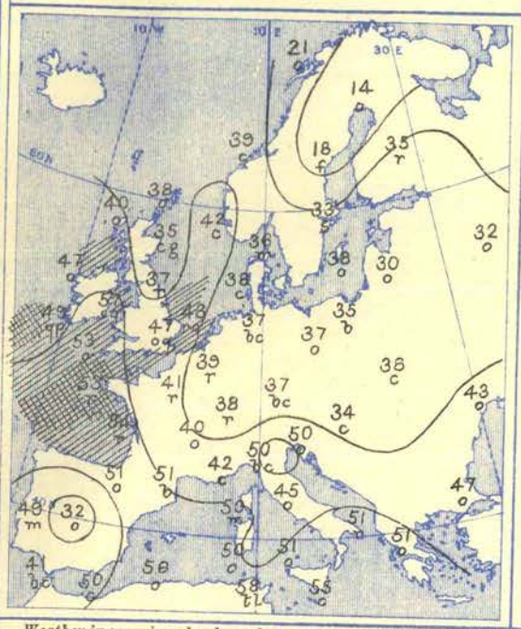
*Wind* South-Westerly over our Islands and the northern parts of the Continent generally; light or moderate in force in most places, but strong at the mouths of the English and Bristol Channels, and also on the south coasts of Norway. Westerly or North-Westerly over the west and south of Ireland, France, and the Spanish Peninsula, with a gale at Perpignan; light to moderate from the Southward or South-Eastward at most of the Italian stations, and also over the south of Russia; calm or variable in Austria. Subsequently veering to the Westward on our western coasts generally, and blowing very strongly.

*Barometer* highest, 30·4 ins. and upwards in an anticyclone lying over the south-western parts of the Spanish Peninsula, and also in another system over the south of Russia. Lowest, 29·1 ins. and less in a large depression lying off the north and west of Scotland; small secondary systems lying over our western coasts. Depression subsequently moving north-eastwards; secondary disturbances advancing [illegible]stwards across England.

## Thursday, 12th January.

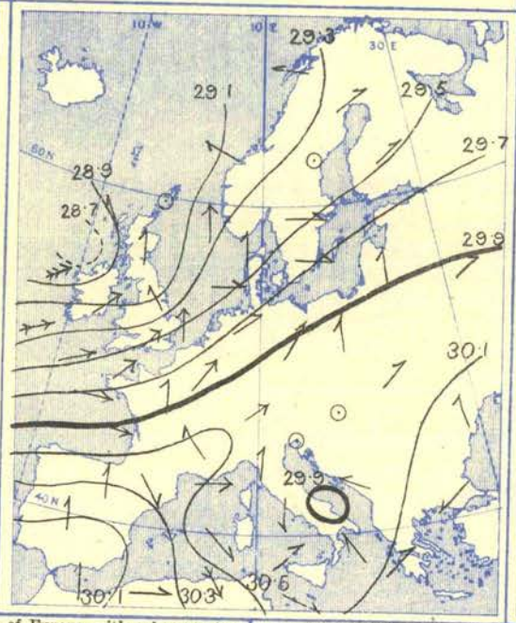
### Temperature and Weather.

8 a.m.

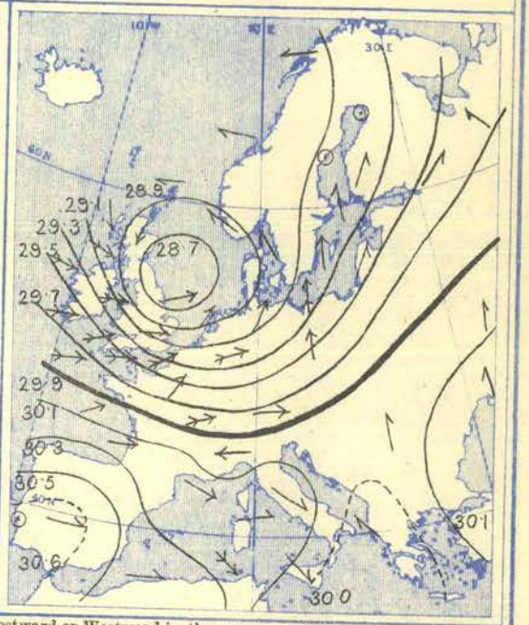


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning cloudy and unsettled over nearly the whole of Europe, with rain over the greater part of England, France, and Belgium, as well as at Brindisi and Kuopio, and snow at Stockholm; thunderstorm reported at La Calle. Fine in the north-east of Scotland, and also in the extreme southern parts of France and Germany. Rain falling later in nearly all countries—very heavily at Oxö and Copenhagen; thunderstorms occurring in some parts of England.

*Temperature* risen over England, Ireland, and France, and also in Germany and Russia; fallen in most other countries. Morning readings highest, 58° at Bilbao and La Calle, 56° at Algiers, and 55° at Malta; above 50° in the west of France, and also on many parts of our own western and southern coasts. Lowest, 14° at Haparanda, 18° at Hernösand, 20° at Uleaborg, and 21° at Bodö; lowest in our Islands, 35° at Aberdeen. Rising during day to 50° and upwards at most of the English and Irish stations, and reaching 57° at Jersey; exceeding 55° also in the west of France and most parts of southern Europe, and reaching 63° at Perpignan and Palermo, and 64° at Sanguinaire.

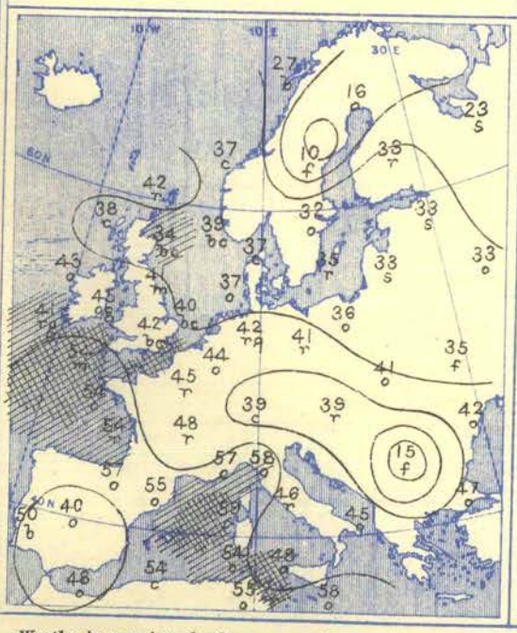
*Wind* strong from the South-Westward or Westward in the western and southern parts of the United Kingdom and the north and west of France, with a gale on the Irish coasts. Moderate to fresh from the Southward or South-Westward over the Netherlands, Germany, Russia, Denmark, and the south of Scandinavia, but Easterly in the west of Norway. Calm in Austria; variable in Italy; chiefly Southerly over the Spanish Peninsula. Subsequently increasing to a violent gale from the Westward over the whole of Ireland, England, and the neighbouring parts of the Continent, and to a strong gale from the Northward at night in the east of Scotland.

*Barometer* highest, 30·6 ins. and upwards over the southern parts of Spain; 30·1 ins. and upwards in two anticyclones—one lying over the south-western, and the other over the south-eastern parts of Europe. Lowest, 28·7 ins. and less in a deep depression, with its centre off the north-west of Ireland. Depression subsequently moving quickly eastwards across Scotland and the North Sea; barometer at Aberdeen falling at 4 p.m. to a minimum of 28·57 ins.

## Friday, 13th January.

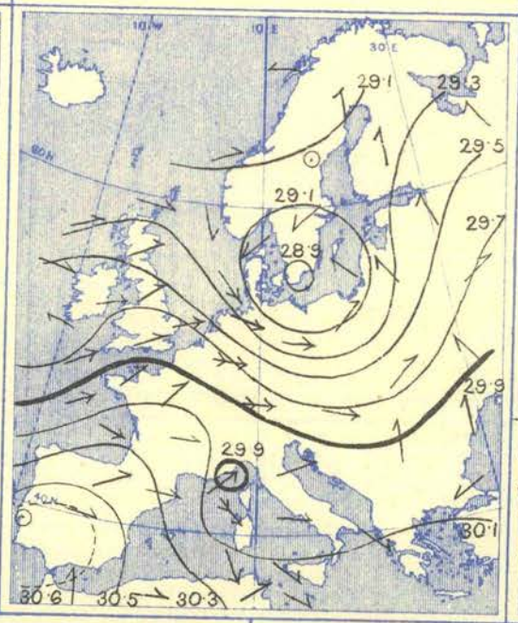
### Temperature and Weather.

8 a.m.

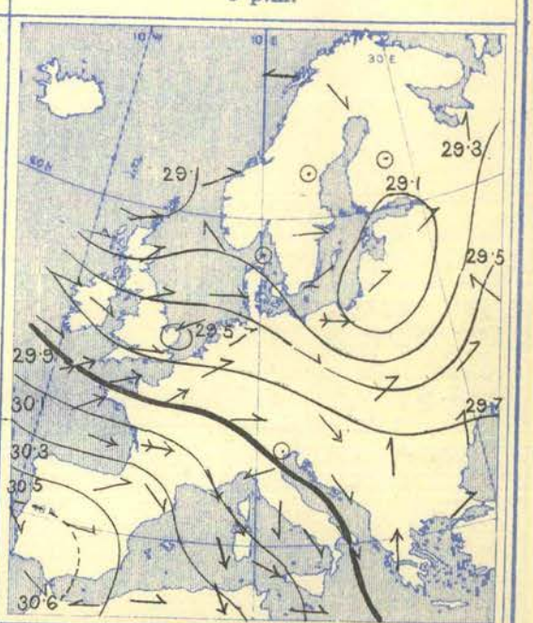


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning cloudy or overcast generally, with rain in Ireland and the south-west of England, as well as at many of the Continental stations; snow falling in several parts of northern Russia. Rain or snow falling during day in all but the southern countries—rather heavily over England and France. Lightning seen at Ardrossan at night.

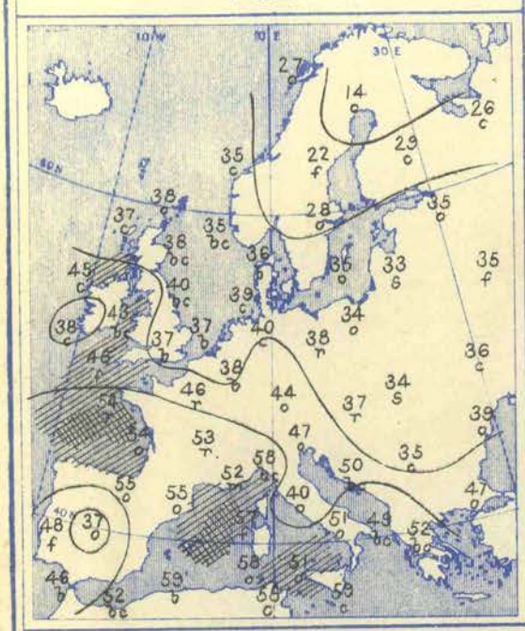
*Temperature* fallen in our Islands and Scandinavia, risen in most other countries. Morning readings highest, 60° at Barcelona, 59° at Sanguinaire, and 58° at Leghorn and Malta; above 50° in the west of France and the Scilly Islands. Lowest, 10° at Hernösand, 16° at Haparanda, 23° at Archangel, and 27° at Bodö. Lowest in our Islands, 34° at Nairn and Aberdeen. Daily maxima below 45° in the northern and eastern parts of the United Kingdom, but thermometer exceeding 50° in the south of England and reaching 57° at Scilly; exceeding 60° in several parts of southern Europe and touching 64° at Sanguinaire and Cagliari.

*Wind* South-Westerly over the greater part of our Islands and the north of France; light to moderate in force generally, but strong at the mouth of the English Channel; Easterly at Valencia (Ireland). Strong to a gale from the Westward over Germany and the east of France, and from the North-Westward over the south of France and neighbouring parts of the Mediterranean; light from the Southward in Russia; Northerly or North-Easterly over the south of Scandinavia; North-Westerly in Denmark. Subsequently increasing to a gale from the Westward or South-Westward over the Channel and France.

*Barometer* highest, 30·6 ins. and upwards over the central and southern parts of the Spanish Peninsula; 30·2 ins. and upwards in an anticyclone covering the south-western parts of Europe generally. Lowest, 28·9 ins. and less in a depression with its centre off the south of Sweden; 29·6 ins. and less in a smaller disturbance off the south-west of Ireland. Both depressions moving eastwards later—the former to the Baltic provinces, the latter to the east of England; new disturbance appearing off the north of Scotland

## Saturday, 14th January.

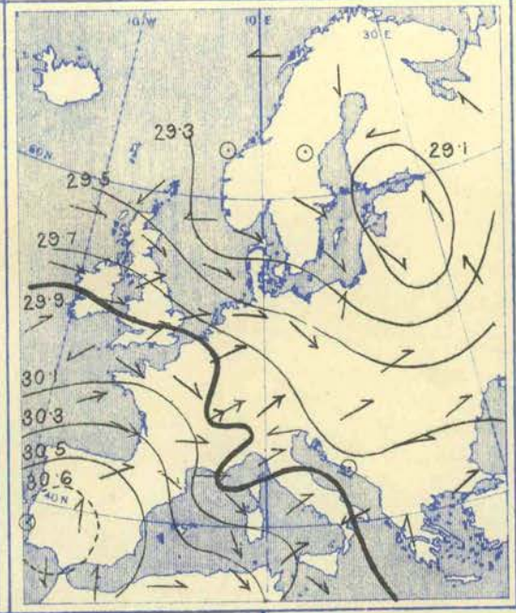
### Temperature and Weather. 8 a.m.



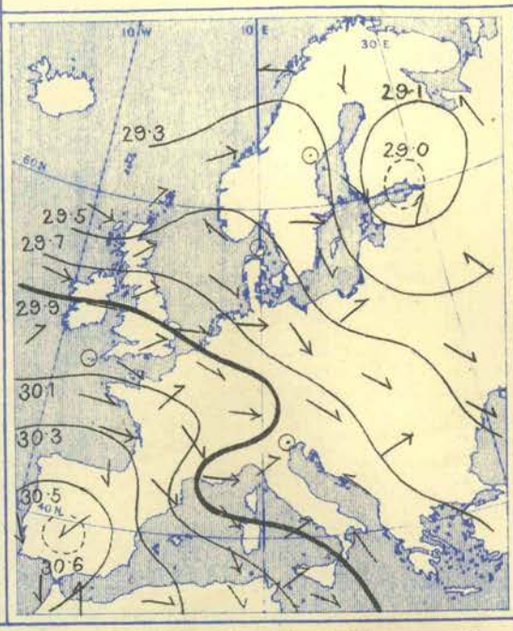
*Weather* in morning fine over our Islands and the eastern shores of the North Sea, as well as in Greece and the southern parts of France and Italy. Cloudy or dull elsewhere, with rain in many parts of France, Denmark, Germany and Austria, and snow at Helsingfors, Riga, Breslau and Lemberg. Rain falling later in the west and extreme north of our Islands, but amount mostly slight.

*Temperature* fallen in our Islands and the northern and central parts of the Continent, but risen in most other localities. Morning readings highest, 59° at Malta and Algiers, 58° at Leghorn and Cagliari, and 57° at Sanguinaire; above 50° over the greater part of France. Lowest, 14° at Haparanda, 15° at Ulcaborg, 22° at Hernösand, and 23° at Karlstadt; lowest in our Islands, 34° at Cambridge and Parsonstown. Rising during day to 45° and upwards over the United Kingdom generally, and to 50° and upwards on our south and south-west coasts; exceeding 55° over the Spanish Peninsula and the south of France, and reaching 64° at Nice. Ground frost occurring over the United Kingdom at night.

### Barometer and Wind. 8 a.m.



### 6 p.m.



*Wind* Westerly (South-Westerly to North-Westerly) over western and central Europe generally; light or moderate in force in most places, but strong in France, with a gale at Belfort. Southerly over central Russia, but Easterly in the extreme northern parts of that country and Scandinavia; light and variable over Greece, Italy and the Spanish Peninsula. No important change occurring over western Europe during day.

*Barometer* highest, 30·6 ins. and upwards over the western and central parts of the Spanish Peninsula; 30·2 ins. and upwards in an anticyclone embracing the greater part of south-western Europe. Lowest, 29·0 ins. and less in a shallow depression, with its centre over the Gulf of Finland; small secondary disturbances reported over various parts of cental Europe New depression appearing later off the north of Scotland; barometer falling in that region but rising in most other localities.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇉ = a heavy gale ⟶ = a gale; → = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

## GENERAL NOTES.

At the commencement of the week the barometer was high in all the more eastern and central parts of Europe, the weather in our Islands being influenced by a rather deep cyclonic system, which moved northwards along our extreme western coasts, and which occasioned gales or very strong winds from the Southward in Ireland and the south-west of England. Later on pressure began to give way in the north, and the depressions which arrived off our Atlantic shores spread further eastward; changeable, showery weather being experienced over north-western Europe generally, and snow in some of the northern countries.

On the evening of the 11th a disturbance of moderate depth was passing away to the northward of Scotland, and the barometer was rising steadily on our western coasts. In the course of the night, however, the centre of a very deep depression advanced to the north-west of Ireland, the system afterwards moving quickly eastwards across Scotland and the North Sea to Denmark and the Baltic, and eventually to Russia. The passage of the disturbance was marked by violent gales from South-West and West, firstly in Ireland, England, and the neighbouring parts of France, and afterwards over central Europe, the weather being in a very squally, unsettled state, with, however, a moderate amount of rain in these Islands. The departure of the storm system from our Islands was followed quickly by the advance of other disturbances from the Atlantic. These, however, were of no great depth, and although the wind in the Channel again increased to a gale on the 13th, with a good deal of rain over England, the weather in other districts moderated considerably.

## BRIGHT SUNSHINE Values for the Week, in addition to those found on page 8.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 9·6 | ? | 21 | ? |
| STRATHPEFFER SPA | 9·4 | + 2·9 | 20 | + 6 |
| EDINBURGH | 4·2 | - 2·0 | 8 | - 6 |
| MORPETH | 8·5 | ? | 16 | ? |
| NEWCASTLE-ON-TYNE | | | | |
| OSWALDKIRK (Yorkshire) | 8·2 | 0·0 | 15 | 0 |
| HOLLESLEY BAY | 21·7 | ? | 39 | ? |
| SHEFFIELD | 9·9 | ? | 18 | ? |
| WORKSOP | 3·3 | - 4·3 | 6 | - 9 |
| THURCASTON (Leicestershire) | 10·1 | + 1·2 | 19 | + 3 |
| PLUMSTEAD COMMON | 14·8 | ? | 26 | ? |
| MARGATE | 20·8 | +11·3 | 37 | + 21 |

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|
| WESTBOURNE (Emsworth) | 19·2* | + 6·5 | 34* | +13 |
| WATERGATE (Emsworth) | | | | |
| BRIGHTON | 15·8 | + 4·4 | 28 | + 8 |
| EASTBOURNE | 20·5 | + 8·5 | 37 | +15 |
| VENTNOR HOSPITAL | 16·6 | ? | 30 | ? |
| SOUTHPORT | 7·3 | ? | 14 | ? |
| COLWYN BAY | ? 13·2 | ? | ? 24 | ? |
| TENBY | 7·1 | - 5·7 | 13 | - 9 |
| NEWQUAY | 4·8 | - 6·2 | 8 | -12 |
| TORQUAY | 7·6* | - 5·8 | 13* | -10 |
| GUERNSEY | 8·8* | - 1·5 | 15* | - 3 |

* The values at Westbourne, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

Wyman & Sons, Ltd., Lith., 63, Carter Lane.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

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VOL. XVI. NO. 3.] *Third Series.* WEEK ENDING SATURDAY, JANUARY 21ST, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 14.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 48 | 21 | 40·4 | 30·7 | 35·8 | 2 below | 0 | − 6 | 43 | 0 | 5 | − 12 | 101 | − 27 |
| | 1. SCOTLAND, EAST | 53 | 24 | 42·5 | 33·0 | 37·9 | 1 above | 1 | − 6 | 33 | −12 | 4 | − 16 | 109 | − 24 |
| | 2. ENGLAND, N.E. | 57 | 28 | 49·5 | 37·0 | 43·4 | 6 above | 31 | +25 | 14 | −28 | 44 | + 26 | 67 | − 56 |
| | 3. ENGLAND, EAST | 57 | 31 | 51·8 | 38·1 | 45·2 | 8 above | 39 | +33 | 11 | −38 | 75 | + 56 | 55 | − 87 |
| | 4. MIDLAND COUNTIES | 57 | 30 | 51·5 | 38·1 | 45·0 | 8 above | 37 | +29 | 11 | −37 | 72 | + 48 | 60 | − 80 |
| | 5. ENGLAND SOUTH | 56 | 30 | 52·0 | 41·6 | 47·0 | 8 above | 37 | +28 | 1 | −38 | 96 | + 66 | 17 | − 98 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 53 | 28 | 47·7 | 37·9 | 43·0 | 4 above | 24 | +15 | 11 | −22 | 40 | + 13 | 57 | − 39 |
| | 7. ENGLAND, N.W. | 56 | 31 | 50·3 | 40·3 | 45·5 | 6 above | 32 | +25 | 5 | −30 | 67 | + 45 | 36 | − 66 |
| | 8. ENGLAND, S.W. | 55 | 29 | 51·9 | 42·3 | 47·3 | 7 above | 37 | +24 | 0 | −28 | 100 | + 60 | 12 | − 71 |
| | 9. IRELAND, NORTH | 53 | 27 | 48·4 | 38·2 | 43·5 | 4 above | 26 | +14 | 11 | −18 | 47 | + 12 | 68 | − 18 |
| | 10. IRELAND, SOUTH | 55 | 30 | 52·0 | 40·5 | 46·5 | 4 above | 38 | +20 | 4 | −19 | 97 | + 44 | 34 | − 35 |
| | —CHANNEL ISLANDS | 56 | 42 | 54·3 | 46·7 | 50·7 | 7 above | 61 | +41 | 0 | −18 | 161 | + 97 | 0 | − 37 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 14.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 7 | 31 | 19 more | 18 | + 3 | 5·2 | + 1·4 | 6 | + 1 | 11 | 0 | 19 | + 3 | 12 | + 2 |
| | 1. SCOTLAND, EAST | 7 | 21 | 15 more | 19 | + 8 | 3·5 | + 1·6 | 9 | + 1 | 18 | + 2 | 22 | − 1 | 15 | − 1 |
| | 2. ENGLAND, N.E. | 6 | 9 | 5 more | 15 | + 4 | 1·8 | + 0·5 | 10 | + 2 | 19 | + 3 | 22 | − 4 | 14 | − 2 |
| | 3. ENGLAND, EAST | 6 | 7 | 2 more | 16 | + 5 | 1·9 | + 0·6 | 8 | − 4 | 14 | − 7 | 41 | + 7 | 23 | + 4 |
| | 4. MIDLAND COUNTIES | 7 | 16 | 10 more | 18 | + 7 | 3·2 | + 1·6 | 7 | − 4 | 12 | − 7 | 26 | − 3 | 16 | − 2 |
| | 5. ENGLAND, SOUTH | 7 | 13 | 6 more | 17 | + 7 | 2·8 | + 0·9 | 3 | − 8 | 4 | −14 | 31 | + 1 | 19 | 0 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 7 | 29 | 17 more | 21 | + 8 | 6·0 | + 2·3 | 7 | − 1 | 13 | − 3 | 16 | − 7 | 10 | − 5 |
| | 7. ENGLAND, N.W. | 7 | 27 | 20 more | 19 | + 8 | 4·6 | + 2·5 | 8 | − 1 | 14 | − 2 | 22 | − 4 | 14 | − 2 |
| | 8. ENGLAND, S.W. | 7 | 29 | 20 more | 19 | + 7 | 6·5 | + 3·8 | 4 | − 8 | 6 | −15 | 16 | − 20 | 9 | −12 |
| | 9. IRELAND, NORTH | 7 | 18 | 11 more | 20 | + 7 | 3·6 | + 1·2 | 7 | − 3 | 13 | − 6 | 23 | − 6 | 15 | − 3 |
| | 10. IRELAND, SOUTH | 7 | 25 | 16 more | 21 | + 9 | 5·6 | + 2·9 | 9 | − 3 | 15 | − 7 | 28 | − 9 | 17 | − 6 |
| | — CHANNEL ISLANDS | 7 | 15 | 7 more | 19 | + 5 | 4·5 | + 2·2 | 4 | −10 | 7 | −16 | 19 | − 18 | 12 | −10 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was very rough and unsettled throughout the whole period. Frequent and heavy rain prevailed in all parts of the Kingdom, and on Tuesday and Wednesday considerable quantities of snow and sleet were experienced over Scotland and the north-east of England. Thunderstorms occurred at some of our southern and eastern stations on the 16th.

*Temperature* was again much above the mean over the greater part of the Kingdom, but was only 1° above the normal in Scotland E., and was 2° below it in Scotland N. The highest of the maxima were registered on rather irregular dates and ranged from as high as 57° in England E., the Midland Counties and England N.E. to 48° in Scotland N. The lowest of the minima were recorded either on the 17th or 18th, and ranged from 21° in Scotland N. and 24° in Scotland E. to 31° in England E. and N.W. and to 42° in the Channel Islands.

*Rainfall* was much in excess of the mean in nearly all places. In the different districts of the United Kingdom the fall ranged from between two and four times the mean value to a few hundredths of excess in England E.

*Bright Sunshine* was deficient in almost all districts, especially in England S. and S.W. and the Channel Islands. The percentage of the possible duration ranged from 19 in England N.E. and 18 in Scotland E. to 7 in the Channel Islands, 6 in England S.W., and 4 in England S.

*Barometer and Wind.*—During the whole of this period depressions have reached us in quick succession from the Atlantic. These have generally moved northwards or north-eastwards over the extreme western and northern coasts, while only their secondaries have passed over our more southern districts. On Saturday, however, a deep and complex disturbance travelled directly eastwards across Ireland and England. Strong Southerly to Westerly winds and gales have consequently been very prevalent over the whole Kingdom, and at the end of the period a North-Easterly gale was experienced in the north and east of Scotland.

207 | 90 Wy. & S., Ltd.
613 | 70 1 | 99.

# II.—DATA from which the SUMMARY on page 13 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 44 | 26 | 39·4 | 31·7 | 35·7 | − 3·4 | 0 | 44 | 7 | 0·89 | + 0·01 | * | * | * | * |
| | Stornoway | 44 | 25 | 38·9 | 30·3 | 34·8 | − 3·8 | 0 | 50 | 7 | 5·60 | + 4·43 | 10·0 | + 3·8 | 20 | + 7 |
| | Wick | 44 | 27 | 40·7 | 30·7 | 35·9 | − 1·8 | 0 | 43 | 6 | 1·63 | + 1·12 | * | * | * | * |
| | Lairg Ⓢ | 41 | 21 | 37·4 | 27·1 | 32·5 | − 4·1 | 0 | 67 | 6 | 1·93 | + 1·12 | * | * | * | * |
| | Glencarron Ⓢ | 46 | 25 | 40·9 | 30·3 | 35·8 | − 1·4 | 0 | 43 | 7 | 4·72 | + 2·45 | * | * | * | * |
| | Fort Augustus Ⓢ | 45 | 23 | 41·7 | 30·8 | 36·5 | − 1·7 | 0 | 39 | 7 | 3·04 | + 2·00 | 2·6 | − 0·4 | 5 | − 2 |
| | Fort William Ⓢ | 48 | 29 | 44·0 | 34·1 | 39·3 | + 1·0 | 6 | 31 | 7 | 4·18 | + 2·01 | 2·3 | − 3·1 | 4 | − 8 |
| 1. SCOTLAND E. | Nairn | 46 | 24 | 40·4 | 30·6 | 35·7 | − 1·5 | 0 | 44 | 7 | 1·93 | + 1·49 | * | * | * | * |
| | Aberdeen | 45 | 28 | 42·3 | 33·0 | 37·8 | + 0·5 | 1 | 33 | 7 | 1·41 | + 0·86 | 13·6 | + 1·8 | 27 | + 4 |
| | Braemar Ⓢ | 41 | 24 | 38·6 | 29·2 | 34·1 | − 0·1 | 0 | 55 | 7 | 1·51 | + 0·78 | 8·2† | + 3·7† | 16† | + 7† |
| | Ochtertyre Ⓢ | 47 | 27 | 43·0 | 33·0 | 38·2 | + 1·8 | 3 | 34 | 7 | 3·48 | + 2·37 | * | * | * | * |
| | Leith | 53 | 30 | 47·4 | 36·1 | 42·0 | + 3·3 | 15 | 17 | 7 | 2·25 | + 1·84 | * | * | * | * |
| | Marchmont Ⓢ | 49 | 25 | 43·4 | 35·9 | 39·8 | + 3·6 | 4 | 23 | 6 | 2·01 | + 1·40 | 9·0 | − 0·2 | 17 | − 1 |
| 2. ENGLAND, N.E. | Alnwick Castle | 57 | 28 | 49·3 | 36·1 | 43·0 | + 5·6 | 32 | 17 | 6 | 1·23 | + 0·73 | * | * | * | * |
| | Durham | 52 | 28 | 48·8 | 36·6 | 42·9 | + 6·3 | 29 | 15 | 7 | 0·77 | + 0·31 | 14·0 | + 4·0 | 26 | + 7 |
| | Shields | 54 | 30 | 49·4 | 36·9 | 43·4 | + 5·1 | 31 | 14 | 7 | 0·75 | + 0·33 | * | * | * | * |
| | Scarborough Ⓜ | 55 | 30 | 48·8 | 36·6 | 42·9 | + 4·8 | 29 | 15 | 6 | 1·07 | + 0·62 | 7·4 | ? | 13 | ? |
| | York | 54 | 31 | 50·7 | 37·4 | 44·3 | + 7·1 | 35 | 13 | 7 | 1·02 | + 0·59 | 7·8 | + 1·1 | 14 | + 2 |
| | Spurn Head | 54 | 34 | 49·7 | 38·1 | 44·1 | + 6·2 | 31 | 11 | 5 | 0·61 | + 0·29 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 55 | 32 | 51·3 | 39·0 | 45·4 | + 8·7 | 36 | 8 | 5 | 0·63 | + 0·18 | 7·4 | − 2·8 | 13 | − 6 |
| | Yarmouth | 57 | 31 | 51·0 | 36·3 | 43·9 | + 6·7 | 37 | 16 | 6 | 0·37 | − 0·09 | * | * | * | * |
| | Geldeston | 56 | 33 | 51·9 | 40·1 | 46·2 | + 8·4 | 37 | 5 | 5 | 0·51 | + 0·13 | 8·2 | − 3·5 | 14 | − 7 |
| | Cambridge | 56 | 31 | 53·0 | 36·9 | 45·3 | + 8·1 | 45 | 14 | 6 | 0·74 | + 0·39 | 7·5 | − 3·5 | 13 | − 7 |
| | Felixstowe | 53 | 32 | 51·1 | 38·4 | 45·0 | + 7·1 | 36 | 10 | 4 | 0·42 | ? | 10·1 | ? | 18 | ? |
| | Rothamsted | 55 | 32 | 52·4 | 37·8 | 45·4 | + 8·5 | 41 | 12 | 7 | 1·27 | + 0·69 | 5·5 | − 4·6 | 10 | − 8 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 57 | 32 | 52·7 | 38·4 | 45·8 | + 8·6 | 42 | 10 | 6 | 1·08 | + 0·65 | * | * | * | * |
| | Loughborough | 57 | 30 | 53·1 | 38·1 | 45·9 | + 8·3 | 44 | 11 | 7 | 1·33 | + 0·87 | * | * | * | * |
| | Stamford (Duddington) | 55 | 31 | 51·9 | 36·9 | 44·7 | + 8·0 | 40 | 14 | 6 | 0·99 | + 0·53 | * | * | * | * |
| | Cheadle Ⓜ | 53 | 30 | 49·2 | 36·7 | 43·2 | + 6·8 | 31 | 15 | 7 | 1·95 | + 1·30 | * | * | * | * |
| | Shirley (near Solihull) | 54 | 31 | 51·1 | 37·5 | 44·6 | + 7·5 | 37 | 13 | 7 | 1·64 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 54 | 31 | 50·5 | 38·5 | 44·7 | + 7·1 | 34 | 10 | 7 | 2·46 | + 1·82 | 6·4 | − 3·8 | 11 | − 8 |
| | Hereford Ⓜ | 55 | 32 | 51·9 | 40·0 | 46·2 | + 8·0 | 38 | 6 | 7 | 1·53 | + 0·95 | * | * | * | * |
| | Cirencester | 54 | 30 | 51·0 | 37·3 | 44·4 | + 7·2 | 37 | 13 | 7 | 1·73 | + 1·03 | 1·7 | − 9·5 | 3 | − 17 |
| | Oxford | 54 | 32 | 52·1 | 39·1 | 45·9 | + 7·9 | 39 | 8 | 6 | 1·34 | + 0·84 | 4·4 | − 6·2 | 8 | − 11 |
| 5. ENGLAND, S. | London | 55 | 34 | 53·3 | 40·1 | 47·0 | + 8·2 | 43 | 5 | 7 | 1·11 | + 0·63 | 1·7† | − 1·7† | 3† | − 7† |
| | Cranley Ⓜ | 55 | 30 | 52·3 | 39·7 | 46·3 | + 7·9 | 40 | 6 | 7 | 1·43 | ? | * | * | * | * |
| | Dungeness | 54 | 32 | 51·7 | 42·0 | 47·0 | + 7·9 | 35 | 0 | 6 | 0·64 | + 0·06 | * | * | * | * |
| | Hastings (St. Leonards) | 53 | 34 | 51·1 | 42·8 | 47·1 | + 8·0 | 36 | 0 | 7 | 1·08 | + 0·44 | 4·9 | − 8·6 | 8 | − 16 |
| | Southampton | 56 | 33 | 52·7 | 42·5 | 47·8 | + 8·5 | 41 | 0 | 7 | 2·00 | + 1·25 | 0·8 | −11·0 | 1 | − 20 |
| | Hurst Castle | 55 | 35 | 52·4 | 44·0 | 48·4 | + 8·2 | 45 | 0 | 7 | 1·24 | + 0·56 | * | * | * | * |
| | Shaftesbury Ⓜ | 52 | 31 | 50·3 | 40·1 | 45·4 | + 8·4 | 32 | 5 | 7 | 1·33 | + 0·63 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 51 | 31 | 47·9 | 35·2 | 42·3 | + 2·5 | 26 | 16 | 7 | 2·87 | + 0·93 | * | * | * | * |
| | Glasgow | 51 | 31 | 45·7 | 36·7 | 41·4 | + 3·0 | 10 | 23 | 7 | 3·72 | + 2·82 | 6·6 | + 1·7 | 12 | + 2 |
| | Ardrossan | 49 | 32 | 47·1 | 38·7 | 43·1 | + 3·2 | 22 | 9 | 7 | 1·79 | + 0·89 | * | * | * | * |
| | Glenlee Ⓢ | 53 | 28 | 48·6 | 37·4 | 43·2 | + 6·2 | 28 | 13 | 7 | 3·69 | + 2·14 | * | * | * | * |
| | Douglas (Isle of Man) | 51 | 34 | 49·3 | 40·7 | 45·2 | + 4·9 | 28 | 4 | 7 | 2·53 | + 1·53 | 7·7 | − 3·3 | 14 | − 7 |
| 7. ENGLAND, N.W. | Stonyhurst | 52 | 33 | 47·4 | 38·6 | 43·2 | + 5·8 | 23 | 10 | 7 | 4·55 | + 3·63 | 5·4 | − 2·8 | 10 | − 5 |
| | Blackpool Ⓜ | 53 | 32 | 50·1 | 39·3 | 44·9 | + 6·9 | 32 | 8 | 7 | 2·41 | + 1·75 | 6·3 | − 2·1 | 11 | − 4 |
| | Manchester (Prestwich) | 54 | 31 | 50·1 | 38·5 | 44·5 | + 7·3 | 32 | 10 | 7 | 2·58 | + 1·88 | 2·8 | ? | 5 | ? |
| | Liverpool Obsy. (Bidston) | 55 | 34 | 52·1 | 40·0 | 46·3 | + 7·2 | 39 | 6 | 7 | 1·74 | + 1·24 | 13·8 | ? | 25 | ? |
| | Llandudno Ⓜ | 56 | 37 | 51·9 | 43·0 | 47·6 | + 6·3 | 39 | 0 | 7 | 2·71 | + 2·09 | 11·6 | + 1·8 | 21 | + 3 |
| | Holyhead | 52 | 37 | 50·4 | 42·6 | 46·7 | + 4·6 | 33 | 0 | 7 | 2·24 | + 1·50 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 55 | 29 | 51·9 | 38·3 | 45·4 | + 7·8 | 39 | 10 | 7 | 4·87 | + 3·69 | * | * | * | * |
| | Pembroke | 53 | 40 | 51·7 | 46·1 | 49·0 | + 6·9 | 49 | 0 | 7 | 2·43 | + 1·56 | 5·3 | − 6·7 | 9 | −12 |
| | Clifton | | | | | | | | | | | | * | * | * | * |
| | Arlington (N. Devon) | 53 | 32 | 50·7 | 40·1 | 45·6 | + 5·6 | 33 | 5 | 7 | 4·16 | + 3·21 | * | * | * | * |
| | Cullompton Ⓜ | 55 | 31 | 52·9 | 40·4 | 46·9 | + 7·3 | 41 | 4 | 7 | 1·74 | + 1·09 | 2·2 | − 7·5 | 4 | −13 |
| | Falmouth | 54 | 37 | 52·6 | 46·0 | 49·4 | + 6·1 | 52 | 0 | 7 | 3·04 | + 1·88 | 4·3 | − 8·3 | 7 | −14 |
| | Plymouth | 54 | 37 | 51·8 | 42·7 | 47·4 | + 5·8 | 38 | 0 | 7 | 2·12 | + 1·23 | 1·7 | − 9·5 | 3 | −16 |
| | Prawle Point | 53 | 36 | 51·9 | 42·3 | 47·3 | + 6·0 | 37 | 0 | 7 | 1·95 | + 1·29 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 50 | 29 | 47·1 | 38·4 | 42·9 | + 1·5 | 21 | 10 | 7 | 1·64 | ? | * | * | * | * |
| | Londonderry | 51 | 32 | 47·8 | 37·9 | 43·1 | + 3·1 | 25 | 11 | 7 | 1·67 | + 0·76 | * | * | * | * |
| | Edenfel (Omagh) | 52 | 27 | 48·4 | 36·6 | 42·7 | + 4·8 | 28 | 15 | 7 | 2·44 | + 1·64 | * | * | * | * |
| | Belmullet | 52 | 33 | 49·4 | 40·4 | 45·1 | + 2·2 | 28 | 4 | 7 | 2·13 | + 1·38 | * | * | * | * |
| | Markree Castle | 53 | 29 | 48·5 | 38·5 | 43·7 | + 4·5 | 27 | 10 | 7 | 2·27 | + 1·43 | 5·5 | − 4·0 | 10 | − 8 |
| | Armagh | 52 | 30 | 48·9 | 38·2 | 43·8 | + 5·1 | 29 | 11 | 7 | 1·23 | + 0·61 | 8·1 | − 1·7 | 15 | − 4 |
| | Donaghadee | 53 | 30 | 48·7 | 37·4 | 43·3 | + 3·2 | 28 | 13 | 6 | 1·43 | + 0·75 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND S. | Dublin | 55 | 33 | 52·8 | 40·9 | 47·1 | + 5·7 | 40 | 3 | 7 | 0·94 | + 0·41 | 12·7 | − 0·5 | 23 | − 1 |
| | Parsonstown | 55 | 30 | 51·0 | 37·7 | 44·6 | + 4·8 | 36 | 12 | 7 | 1·56 | + 0·86 | 9·2 | − 2·2 | 16 | − 5 |
| | Kilkenny | 55 | 30 | 51·3 | 38·6 | 45·2 | + 4·3 | 37 | 10 | 7 | 1·64 | + 0·84 | * | * | * | * |
| | Roche's Point | 54 | 38 | 51·9 | 43·0 | 47·6 | + 4·5 | 39 | 0 | 7 | 3·54 | + 2·33 | * | * | * | * |
| | Valencia | 54 | 37 | 52·6 | 42·1 | 47·6 | + 2·8 | 39 | 0 | 7 | 2·97 | + 1·65 | 3·8 | − 8·8 | 7 | −15 |
| | Killarney | 55 | 30 | 52·7 | 40·7 | 46·9 | + 3·5 | 40 | 4 | 7 | 4·46 | ? | * | * | * | * |
| | Foynes | 54 | 32 | 51·7 | 40·5 | 46·3 | + 5·2 | 36 | 4 | 7 | 2·38 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 56 | 42 | 54·7 | 46·1 | 50·6 | + 5·1 | 60 | 0 | 7 | 1·86 | + 1·04 | 4·3 | ? | 7 | ? |
| | Jersey | 56 | 43 | 53·9 | 47·3 | 50·7 | + 8·8 | 61 | 0 | 6 | 1·14 | + 0·42 | 4·2 | −11·6 | 7 | −20 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

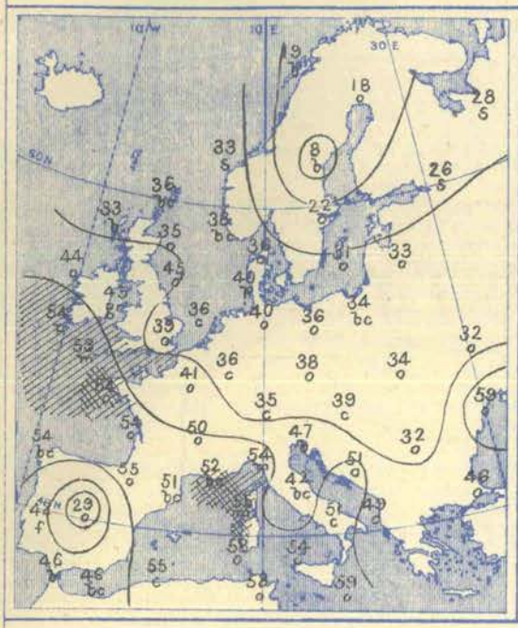
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake

## Sunday, 15th January.

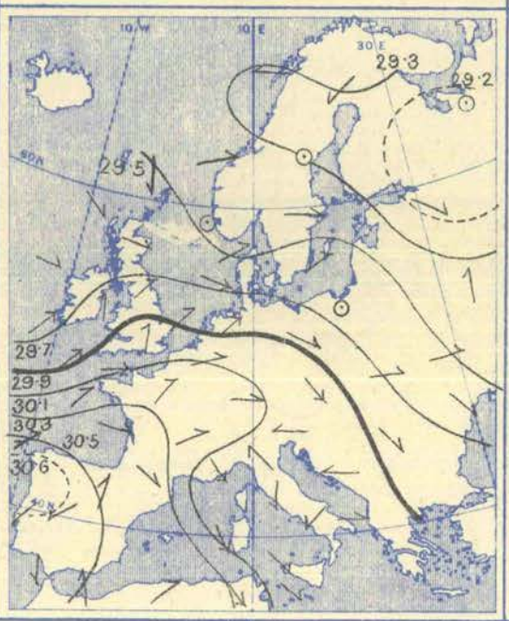
### Temperature and Weather.

#### 8 a.m.

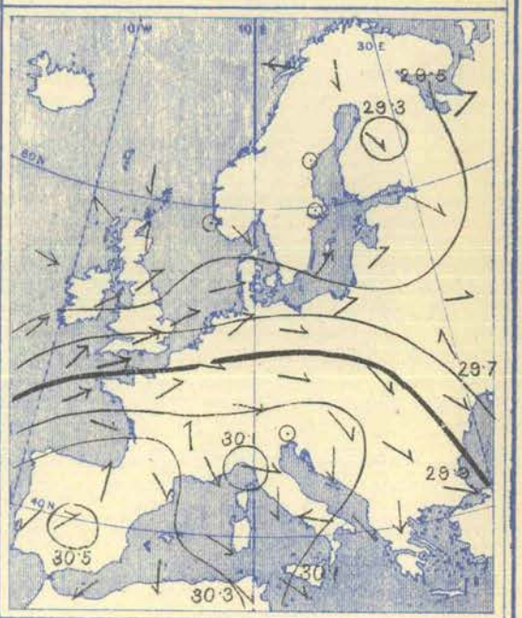


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fair over the Spanish Peninsula and the Mediterranean, less settled elsewhere, especially over north-western and northern Europe. Rain falling at times later on all our coasts and over Germany, snow in the north of Scotland and some parts of northern Europe. Lightning in the south of Ireland at night.

*Temperature* in morning highest, 59° at Malta, 58° at Cagliari and Perpignan, and exceeding 50° at most of the coast stations in southern and western Europe, including those in the south and west of our Islands, 50° over Russia. Lowest, 8° at Hernösand, 18° at Haparanda, and considerably below the freezing point over northern Europe generally, 30° to 36° over the northern parts of Scotland. Rising a few degrees in many places later, but not reaching 40° in the north of Scotland, nor touching 20° at Hernösand.

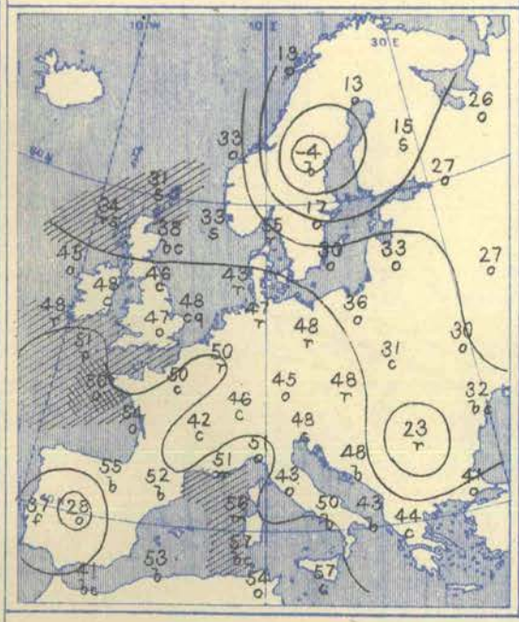
*Wind* (1) North-Westerly to Westerly in Scotland; South-Westerly to Southerly over Ireland and England; anticyclonic over France, and Westerly over central Europe; North-Westerly over the Mediterranean. Becoming very strong later from the South-Westward over Ireland, England, and the north of France, but decreasing in force over Germany.

*Barometer* was highest (30·6 ins. and more) over central Spain, and exceeding 30·0 ins. over France, the Bay of Biscay, and Spain generally. Lowest, below 29·2 ins. in a depression over the north of Russia, and below 29·6 ins. off the north-west of Ireland. Gradients steep over the Bay of Biscay. Falling fast in our Islands later, as a depression and some secondary systems came from the Atlantic later.

## Monday, 16th January.

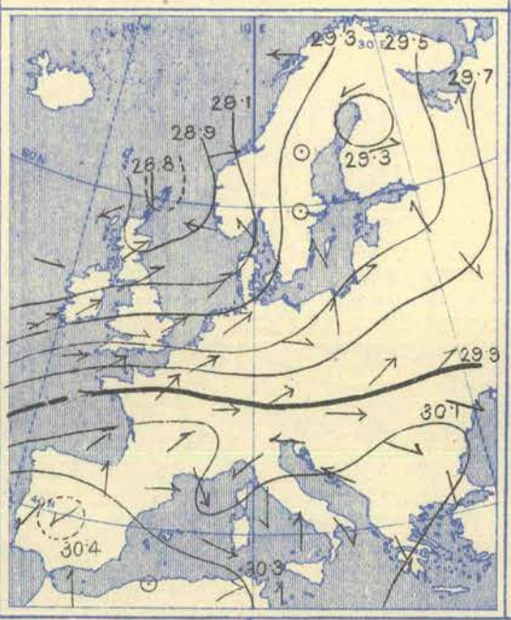
### Temperature and Weather.

#### 8 a.m.

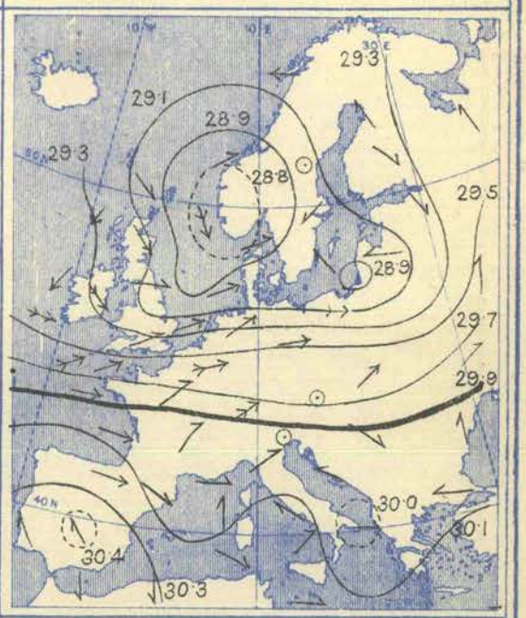


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning still fair over the Spanish Peninsula, the Mediterranean and extreme south and south-east of Europe, very unsettled elsewhere, especially over the British Islands and their neighbourhood; rain falling in England and Ireland, snow and sleet in northern Europe and the north of Scotland. Further falls of these at times during the next twenty-four hours; lightning seen at our southern stations at night.

*Temperature* in morning highest, 57° at Malta and Cagliari, and exceeding 50° at many of the Mediterranean stations, and on our own south and south-west coasts. Lowest, 13° to 25° over many parts of northern Europe; below 32° over Russia, 28° at Madrid. Falling decidedly at our northern stations later, and the cold spreading southwards to Ireland and England also.

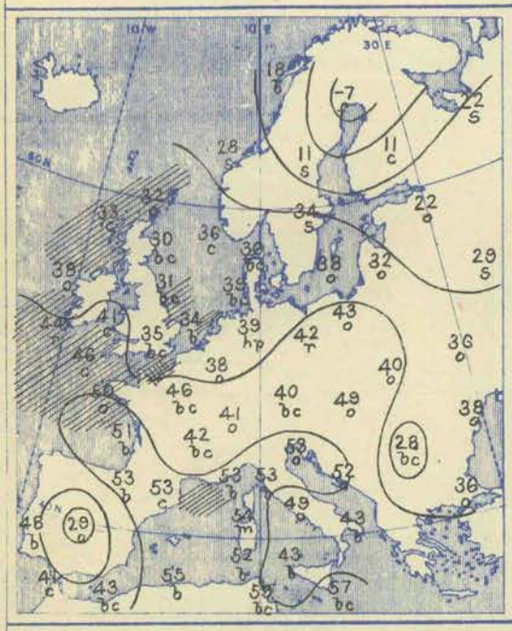
*Wind* light and variable over the Mediterranean; South-Westerly and Westerly, very strong over northern France, Ireland and England; Northerly to North-Easterly in the north of Scotland. The Northern breeze spreading Southwards later to the northern parts of Ireland and England, but strong West-South-West winds continuing on our own south-west coasts.

*Barometer* highest, 30·5 ins. and more over the central and southern parts of Spain, and exceeding 30·0 ins. over the southern half of France and the north of Italy. Lowest, 28·8 ins. and less in a depression near the Shetlands, and below 29·0 ins. in another off our north-west coasts. Depressions in the north moving eastwards later, and barometer rising fast at our north-western and western stations.

## Tuesday, 17th January.

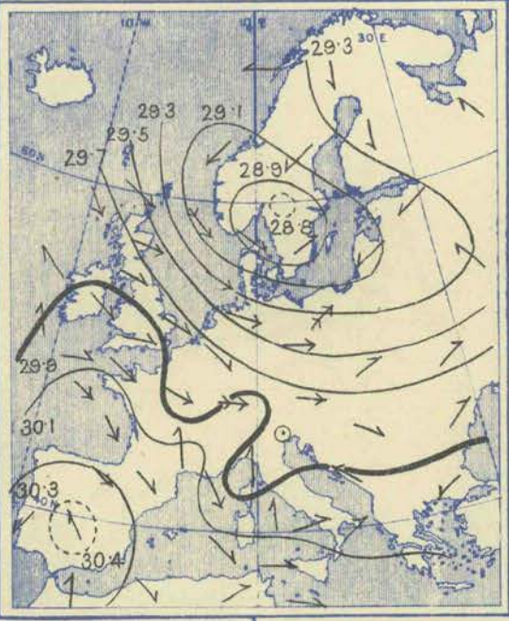
### Temperature and Weather.

8 a.m.

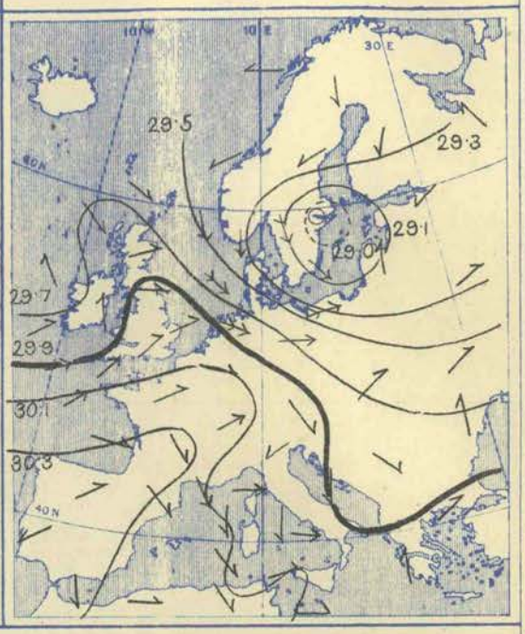


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over the southern parts of the Mediterranean and the Iberian Peninsula, and temporarily much finer over Great Britain and the east of Ireland; still very unsettled over northern Europe and somewhat so over the southern half of Russia. Fresh fall of rain from the westward extending over our Islands later; rain and snow falling at the northern stations and also in Portugal.

*Temperature* fallen suddenly in our Islands and France—as much as 15° at Cambridge. Morning readings highest, 59° at La Calle, and still exceeding 50° over the southern shores of the North Sea and the west of France, but not exceeding 46° at Scilly and Roches Point, and 44° at Valencia. Lowest, 7° Fahr. at Uleaborg and 11° at Kupio and Helsingfors, 29° at Moscow, 30° to 32° in the north and east of Scotland, 33° over central England. Rising later to between 50° and 53° over Ireland and the south-west of England and to 50° in London; Scotland remaining below 40°

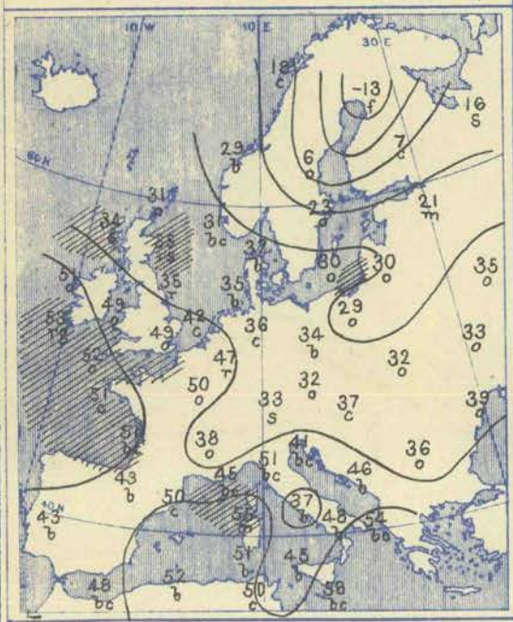
*Wind* (1) North-Westerly strong to a gale over the eastern parts of the North Sea; South-Westerly in north Germany; Easterly (more moderate) over the northern parts of Scandinavia; Southerly to South-Easterly again in the west and south of Ireland; North-Westerly fresh over France. The South-Westerly to South-Easterly winds extending all over Ireland, England and Brittany later, and blowing strongly at times in many places.

*Barometer* in morning highest, 30·4 ins. and more at Lisbon and exceeding 30·0 ins. all over the Peninsula and the west and south of France. Lowest, 28·8 ins. in a well-marked depression over Scandinavia, and below 29·9 ins. in a well marked disturbance approaching the west of Ireland from the Atlantic; rising fast over our eastern and northern stations. Falling fast at our western stations later as fresh disturbances approached Ireland.

## Wednesday, 18th January.

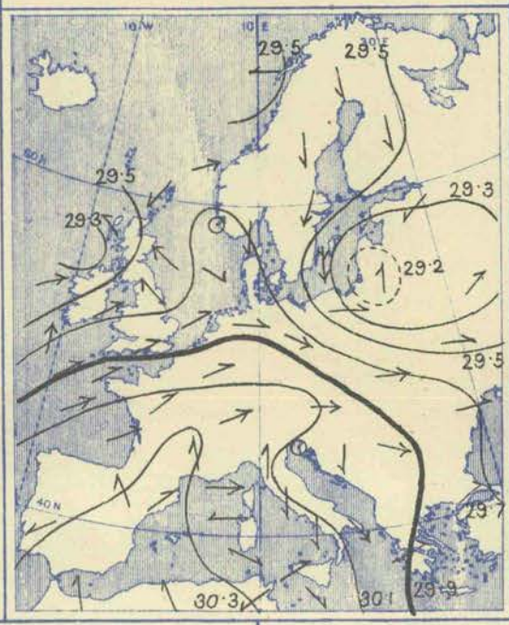
### Temperature and Weather.

8 a.m.

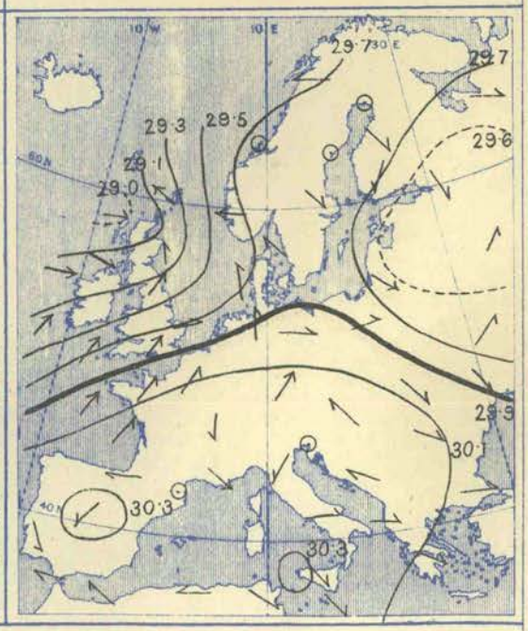


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair over Spain and temporarily fair over Scandinavia; dull and becoming very unsettled over the British Islands, with rain at all but the eastern stations; fog in places; rain in Holland and several parts of France also; snow at Breslau. Rain later at our own stations and in the north-west of France, also in Germany and Denmark—amount considerable at Roche's Point.

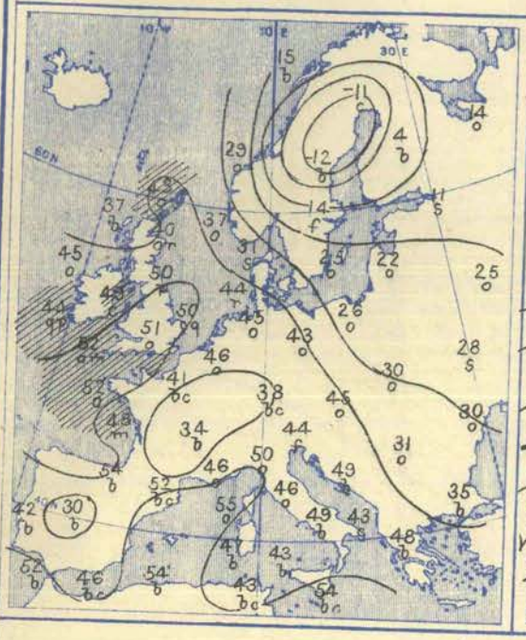
*Temperature* risen fast over England and Ireland. Morning readings highest, 58° at Malta, and 50° to 53° at the coast stations in the west of France and the south and south-west of our Islands. Lowest, (1) −13° at Haparanda 6° at Hernösand, 7° at Kuopio, 32° to 36° over central Europe, 38° at Limoges, 33° to 35° over the north and east of Britain. Rising later to between 50° and 55° over Ireland, Great Britain, and many parts of France, and to 61° at Perpignan, but not exceeding 14° at Haparanda, and 18° at Bodö.

*Wind* (1) Northerly to Westerly over the Baltic, and blowing a gale in places; (2) South-Westerly at our western stations and increasing in force; South-Easterly over Scotland; (3) light and very variable over the western parts of Continental Europe. Blowing strongly over Ireland and England all day, and veering Southwards in Scotland.

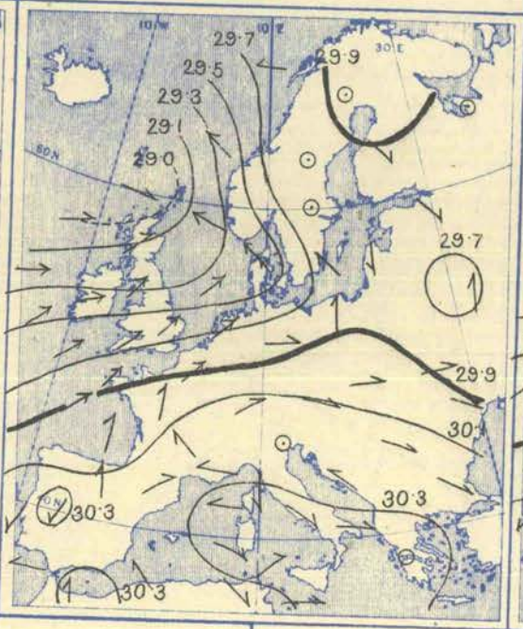
*Barometer* highest, 30·3 ins. and more over Algeria and Spain, and exceeding 30·0 ins. almost all over the southern half of Europe. Lowest, (1) below 29·2 ins. in a depression over Riga, and below 29·3 ins. in another off the west of Scotland. Latter depression moving north eastwards during the day, and pressure decreasing all over our Islands.

## Thursday, 19th January.

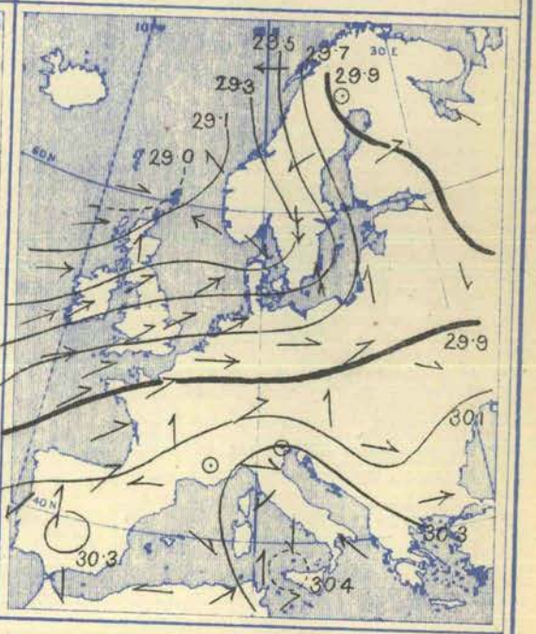
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over Spain and France, fair in Scotland, very dull over Ireland, England, the Channel and Holland, with rain at times in most places. Rain falling later, at intervals, over the British Islands and their neighbourhood—the largest amounts reported being from the south-west and west of Ireland, and least from our north-east and east coasts.

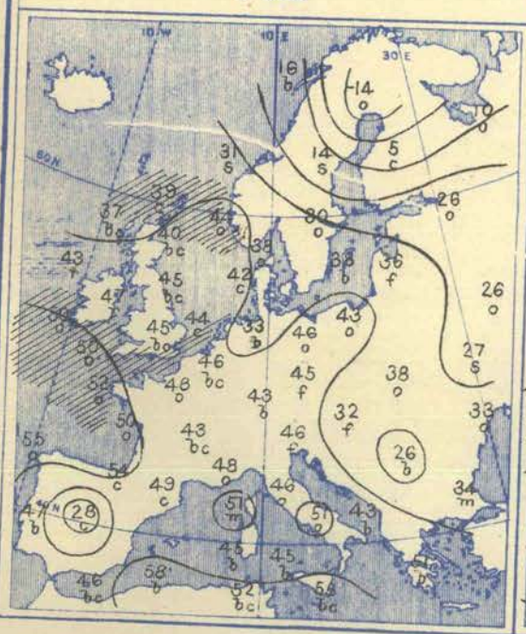
*Temperature* risen fast at our north-eastern stations and on the eastern shores of England, as well as in Denmark and Holland. Highest, 54° at Malta and Algiers, and above 50° over Brittany, the Channel and greater part of England. Lowest, -12° at Hernösand, -11° at Haparanda, +3° at Helsingfors, 15° at Bodö and Karlstad, and below the freezing point over Russia and eastern Germany; 37° at Stornoway and 39° at Nairn. Rising in Ireland later but falling over Great Britain.

*Wind* South-Westerly to Southerly over the greater part of France and the British Islands, and blowing strongly in many places and over the North Sea; South-Easterly in Norway. Light and exceedingly variable over southern Europe. No change of apparent importance occurring later.

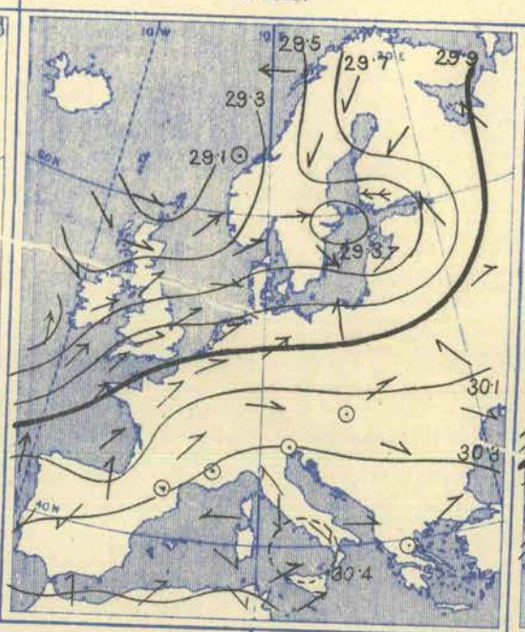
*Barometer* highest, 30·3 ins. and more over Italy, Sardinia and Corsica. Lowest, below 29·0 ins. over the Shetlands, Hebrides, and extreme north of Scotland. Gradients steep over the southern parts of our Islands, slight over southern and south-eastern Europe. Barometer unsteady during day, but nothing like a new deep depression approaching our western coasts. Disturbance in north moving north-eastwards.

## Friday, 20th January.

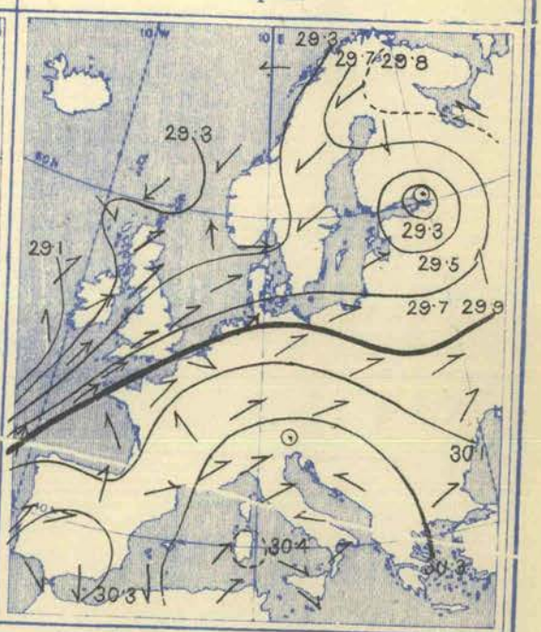
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair over southern Europe, temporarily so in several of the northern and eastern parts of Great Britain; dull, rainy, and unsettled in the west of our Islands; considerable snow over the Baltic. Large quantities of rain in the west and south-west of our Islands later, smaller amounts elsewhere, and again very unsettled generally.

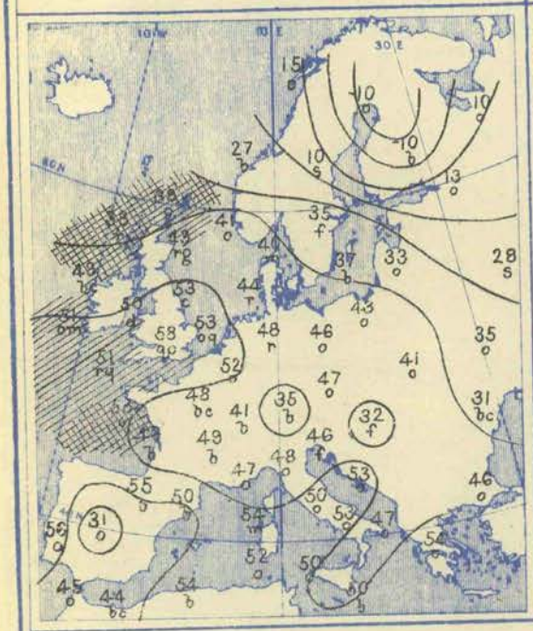
*Temperature* in morning highest, 58° at Algiers, 55° at Malta, and continuing above 50° at several of our south-western and southern stations, though fallen somewhat over the inland and northern parts of England, risen over Finland. Lowest, -14° Fahr. at Haparanda, +5° at Kuopio, 16° at Bodö, 26° at St. Petersburg and Stockholm. Rising several degrees over England and France later, and touching 55° at Loughborough, Liverpool, Jersey, London, and Cambridge, and 61° at Biarritz.

*Wind* (1) North-Westerly and Westerly over the northern parts of Scotland; South-Westerly at Skudesnaes, and Easterly at Bodö; (2) South-Westerly to Southerly over Ireland, England, and the northern parts of France; cyclonic over the Baltic; light and variable over southern and south-eastern Europe. Increasing in force over Ireland and England as night came on.

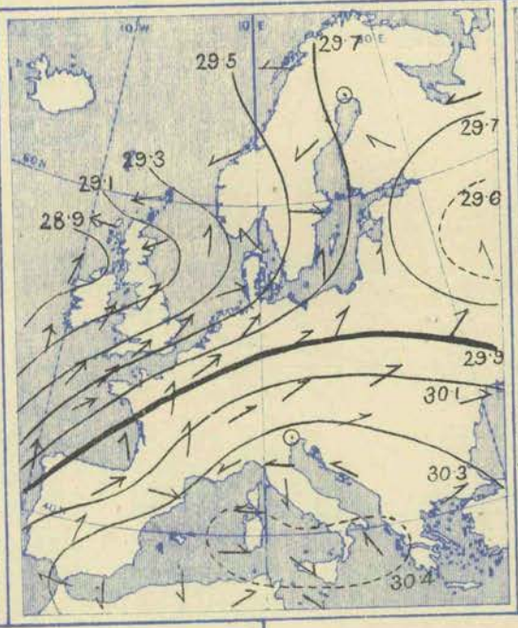
*Barometer* highest, 30·4 to 30·3 ins. over the Mediterranean, and 30·3 ins. to 29·9 ins. over France. Lowest, 29·1 ins. and less off the north of Scotland; 29·2 ins. in a small depression over the Mediterranean, and apparently below 29·3 ins. to the westward of Ireland. Falling decidedly in the latter region as night came on, and a new depression spread over our western districts from the Atlantic.

## Saturday, 21st January.

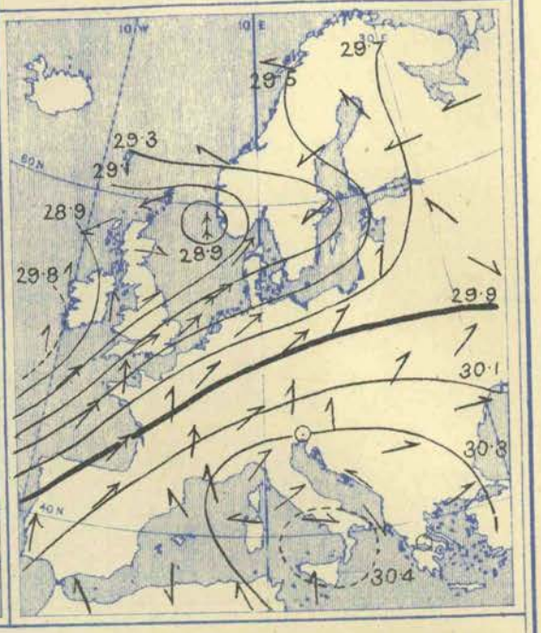
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair but dull over southern and south-eastern Europe; unsettled in the north (though clear in places); very unsettled, squally, and rainy in the British Islands. Large quantities of rain in the north-west of Scotland later, and a considerable quantity in Ireland and the north of England—a little over our eastern counties. A considerable fall at Corunna also.

*Temperature* risen, highest (50° to 54°) again all over England, the south of Ireland and Brittany. Lowest, -10° Fahr. at Haparanda and Kuopio, +10° at Hernösand, 27° at Christiansund, 32° at Vienna, 35° at Munich, 41° at Belfort and Turin. Rising a little in England later, and still more in France, but not touching 40° in the Shetlands and Hebrides.

*Wind* (1) South-Westerly to Southerly strong to a gale all over Holland, England, Ireland, and the Bay of Biscay, but Easterly strong to a gale in the north of Scotland; (2) lighter from South-West over central France and Germany; Easterly to North-Easterly over the northern half of Scandinavia. Very little change later.

*Barometer* highest, 30·4 ins. or more in many parts of the Mediterranean, and ranging from 30·3 ins. to 29·7 ins. over the greater part of France; (2) 29·7 ins. and more over the northern and central parts of Finland. Lowest, 28·9 ins. and less in a depression off our north-west coasts, and below 29·0 ins. in a secondary disturbance over Scotland. Further disturbances approaching our west and north coasts later, and distribution of pressure becoming very complex in our Islands.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟿ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During the first part of this week pressure was highest over the Spanish Peninsula and the south-west of France, and lowest over north-western Europe, and to the northward of the British Islands, but after Wednesday the area of highest pressure moved eastwards slowly, and finally covered the Mediterranean, Italy and neighbouring parts of southern Europe, while depressions continued to move from south-west over the western and northern parts of our Islands to northern Europe. Thus, while with few exceptions the southern parts of the Continent have had quiet weather, the north-western and northern parts have been visited by a series of depressions and South-Westerly gales, doing great damage, and succeeding one another very steadily, accompanied by rain, and high temperature.

At the close of the week the barometer rose over northern Europe, the distribution of pressure became very complex, and the passage of depressions over our Islands seemed likely to cease for a time.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 14.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 5·2 | ? | 11 | ? | WESTBOURNE (Emsworth) * | 3·1* | - 9·6 | 5* | -17 |
| STRATHPEFFER SPA | 7·4 | + 0·5 | 15 | + 1 | WATERGATE (Emsworth) | 1·8 | - 9·6 | 3 | -17 |
| EDINBURGH | 5·1 | - 2·3 | 10 | - 5 | BRIGHTON | 3·8* | ? | 6* | ? |
| MORPETH | 13·5 | ? | 25 | ? | BOGNOR * | 2·8 | - 9·4 | 5 | -16 |
| NEWCASTLE-ON-TYNE | 9·0 | ? | 17 | ? | EASTBOURNE | 1·8 | ? | 3 | ? |
| OSWALDKIRK (Yorkshire) | 9·2 | + 0·6 | 17 | + 1 | VENTNOR HOSPITAL | 7·9 | ? | 14 | ? |
| HOLLESLEY BAY | 7·6 | ? | 13 | ? | SOUTHPORT * | 8·6 | ? | 15 | ? |
| SHEFFIELD | 10·2 | ? | 18 | ? | COLWYN BAY | 4·5 | - 8·5 | 8 | -15 |
| WORKSOP | 8·5 | + 0·3 | 15 | 0 | TENBY | 3·2 | - 9·5 | 5 | -15 |
| THURCASTON (Leicestershire) | 9·2 | + 0·2 | 16 | 0 | NEWQUAY | 5·6* | - 7·9 | 9* | -14 |
| PLUMSTEAD COMMON | 0·7 | ? | 1 | ? | TORQUAY * | 3·4* | - 7·6 | 6* | -13 |
| MARGATE | 4·8 | - 5·0 | 8 | - 9 | GUERNSEY * | | | | |

* The values at Westbourne, Bognor, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS LTD. LITH. 63 CARTER LANE

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL XVI. NO. 4.] *Third Series.* WEEK ENDING SATURDAY, JANUARY 28TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 20.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 45 | 12 | 39·5 | 28·0 | 33·9 | 4 below | 0 | − 7 | 57 | +14 | 5 | − 19 | 158 | − 13 |
| | 1. SCOTLAND, EAST | 49 | 10 | 37·6 | 24·2 | 31·2 | 6 below | 0 | − 8 | 76 | +31 | 4 | − 24 | 185 | + 7 |
| | 2. ENGLAND, N.E. | 51 | 19 | 41·5 | 29·9 | 35·9 | 2 below | 0 | − 6 | 43 | + 2 | 44 | + 20 | 110 | − 54 |
| | 3. ENGLAND, EAST | 54 | 23 | 43·5 | 34·6 | 39·2 | 2 above | 4 | − 3 | 28 | −20 | 79 | + 53 | 83 | −107 |
| | 4. MIDLAND COUNTIES | 52 | 18 | 40·6 | 30·9 | 35·9 | 2 below | 0 | − 9 | 43 | − 5 | 72 | + 39 | 103 | − 85 |
| | 5. ENGLAND SOUTH | 54 | 28 | 43·0 | 35·1 | 39·2 | 0 (average) | 3 | − 6 | 26 | −13 | 99 | + 60 | 43 | − 111 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 49 | 15 | 39·7 | 28·8 | 34·5 | 5 below | 0 | −10 | 53 | +20 | 40 | + 3 | 110 | − 19 |
| | 7. ENGLAND, N.W. | 53 | 22 | 40·8 | 31·4 | 36·3 | 3 below | 0 | − 8 | 40 | + 5 | 67 | + 37 | 76 | − 61 |
| | 8. ENGLAND, S.W. | 52 | 23 | 42·1 | 34·0 | 38·2 | 3 below | 0 | −14 | 29 | + 1 | 102* | + 48 | 41 | − 70 |
| | 9. IRELAND, NORTH | 48 | 18 | 41·0 | 31·3 | 36·3 | 4 below | 0 | −13 | 40 | +12 | 47 | − 1 | 108 | − 6 |
| | 10. IRELAND, SOUTH | 51 | 23 | 43·8 | 34·2 | 39·2 | 3 below | 5 | −14 | 30 | + 8 | 102 | + 30 | 64 | − 27 |
| | —CHANNEL ISLANDS— | 55 | 32 | 46·8 | 39·8 | 43·4 | 1 below | 19 | − 1 | 6 | − 7 | 180 | + 96 | 6 | − 44 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 20.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 2 | 2 | 10 less | 20 | − 1 | 5·4 | + 0·3 | 16 | + 9 | 30 | +18 | 35 | + 13 | 17 | + 7 |
| | 1. SCOTLAND, EAST | 2 | 2 | 5 less | 21 | + 6 | 3·7 | + 1·1 | 19 | + 9 | 34 | +16 | 41 | + 9 | 20 | + 4 |
| | 2. ENGLAND, N.E. | 3 | 4 | 1 less | 18 | + 3 | 2·2 | + 0·4 | 15 | + 4 | 26 | + 6 | 37 | 0 | 16 | 0 |
| | 3. ENGLAND, EAST | 3 | 2 | 3 less | 19 | + 3 | 2·1 | + 0·3 | 36 | +22 | 60 | +35 | 77 | + 28 | 32 | +13 |
| | 4. MIDLAND COUNTIES | 2 | 2 | 4 less | 20 | + 5 | 3·4 | + 1·2 | 26 | +18 | 44 | +30 | 52 | + 15 | 25 | + 7 |
| | 5. ENGLAND, SOUTH | 2 | 1 | 6 less | 19 | + 4 | 2·9 | + 0·4 | 36 | +22 | 59 | +37 | 67 | + 23 | 29 | +10 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 1 | 1 | 12 less | 22 | + 4 | 6·1 | + 1·1 | 17 | + 8 | 30 | +13 | 33 | + 1 | 16 | + 1 |
| | 7. ENGLAND, N.W. | 1 | 2 | 5 less | 20 | + 4 | 4·8 | + 2·0 | 21 | +12 | 36 | +21 | 43 | + 9 | 21 | + 5 |
| | 8. ENGLAND, S.W. | 2 | 3 | 6 less | 21 | + 4 | 6·7* | + 3·1 | 34 | +21 | 55 | +34 | 50 | + 1 | 22 | + 1 |
| | 9. IRELAND, NORTH | 2 | 3 | 5 less | 22 | + 3 | 3·9 | + 0·6 | 27 | +16 | 47 | +27 | 50 | + 10 | 23 | + 4 |
| | 10. IRELAND, SOUTH | 1 | 2 | 7 less | 22 | + 5 | 5·8 | + 2·1 | 27 | +14 | 45 | +22 | 55 | + 5 | 25 | + 2 |
| | — CHANNEL ISLANDS— | 2 | 2 | 6 less | 21 | + 2 | 4·7 | + 1·6 | 27 | +13 | 43 | +19 | 46 | − 5 | 20 | − 3 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was mild, unsettled and rainy at the commencement of the period, but soon became much colder, dry, and very fine generally. Over the north of England and the south of Scotland, however, a good deal of fog or mist was experienced.

*Temperature* was much lower than that of any previous week during the present winter. In England E. it was 2° above the mean value and just equal to it in England S., but elsewhere it ranged from 1° below the normal in the Channel Islands to 4° below in Scotland N. and Ireland N. and to 6° below in Scotland E. The highest of the maxima were recorded on the 22nd, and ranged from 55° in the Channel Islands and 54° in England E. and S. to 45° in Scotland N. The lowest of the minima, which were recorded during the middle or latter part of the week, ranged from 10° in Scotland E. (at Braemar), 12° in Scotland N., and 15° in Scotland W. to 28° in England S. and to 32° in the Channel Islands.

*Rainfall* was less than the mean in all districts. The fall over the greater part of the Kingdom was very slight, and took place on the 22nd or 23rd.

*Bright Sunshine* was greatly in excess in all districts. The percentage of the possible duration ranged from 26 in England N.E. and 30 in Scotland N. and W. to 45 or 46 in Ireland, 55 in England S.W., 59 in England S., and 60 in England E.

*Barometer and Wind.*—During the earlier days of the period a complex depression travelled eastwards over the northern parts of Ireland and England causing strong North-Easterly winds in Scotland, and South-Westerly and Westerly gales over England and Ireland. As this system disappeared to the eastward, the wind veered to the Northward and an anticyclone commenced to spread over us from the Atlantic. By the morning of the 24th this system covered the whole Kingdom, and did not very materially change its position during the remainder of the period, although it gradually decreased in height. Keen North-Easterly winds set in in the south and south-east, moderate to strong South-Easterly and Southerly winds in the west, and fresh South-Westerly winds in the extreme north-west.

207 | 90 Wy. & S., Ltd.
613 | 70 1 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 19 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 45 | 30 | 42·0 | 34·3 | 38·3 | − 0·8 | 0 | 26 | 3 | 0·12 | − 0·74 | * | * | * | * |
| | Stornoway | 44 | 29 | 41·4 | 32·3 | 37·0 | − 1·9 | 0 | 35 | 3 | 0·78 | − 0·33 | 11·5 | + 3·7 | 22 | + 7 |
| | Wick | 44 | 26 | 40·9 | 30·0 | 35·7 | − 2·2 | 0 | 44 | 3 | 0·08 | − 0·42 | * | * | * | * |
| | Lairg § | 44 | 12 | 38·8 | 19·1 | 29·2 | − 7·4 | 0 | 89 | 1 | 0·03 | − 0·77 | * | * | * | * |
| | Glencarron § | 41 | 20 | 38·4 | 27·1 | 33·0 | − 4·2 | 0 | 63 | 2 | 0·05 | − 2·15 | * | * | * | * |
| | Fort Augustus § | 41 | 20 | 37·6 | 25·6 | 31·8 | − 6·4 | 0 | 71 | 1 | 0·23 | − 0·77 | 16·3 | +12·3 | 30 | + 22 |
| | Fort William § | 42 | 23 | 37·1 | 27·6 | 32·5 | − 5·9 | 0 | 67 | 1 | 0·17 | − 1·96 | 13·5 | + 6·6 | 25 | + 12 |
| 1. SCOTLAND E. | Nairn | 41 | 20 | 39·9 | 25·6 | 33·0 | − 4·2 | 0 | 63 | 2 | 0·15 | − 0·25 | * | * | * | * |
| | Aberdeen | 41 | 17 | 35·7 | 25·9 | 31·0 | − 6·6 | 0 | 77 | 3 | 0·26 | − 0·34 | 20·3 | + 7·4 | 38 | + 14 |
| | Braemar § | 37 | 10 | 32·7 | 18·3 | 25·8 | − 8·6 | 0 | 113 | 1 | 0·05 | − 0·68 | 19·7† | +13·5† | 36† | + 24† |
| | Ochtertyre § | 42 | 18 | 38·1 | 22·0 | 30·4 | − 6·2 | 0 | 81 | 1 | 0·27 | − 0·83 | * | * | * | * |
| | Leith | 44 | 21 | 38·3 | 27·4 | 33·1 | − 5·8 | 0 | 62 | 2 | 0·15 | − 0·33 | * | * | * | * |
| | Marchmont § | 49 | 20 | 41·0 | 26·0 | 33·8 | − 2·8 | 0 | 57 | 3 | 0·17 | − 0·50 | 20·0 | +10·0 | 36 | + 17 |
| 2. ENGLAND, N.E. | Alnwick Castle | 48 | 19 | 41·3 | 25·5 | 33·7 | − 4·2 | 0 | 58 | 3 | 0·30 | − 0·22 | * | * | * | * |
| | Durham | 49 | 20 | 39·6 | 25·9 | 33·0 | − 4·2 | 0 | 63 | 3 | 0·51 | + 0·04 | 16·3 | + 5·3 | 29 | + 9 |
| | Shields | 50 | 24 | 40·3 | 30·1 | 35·4 | − 3·3 | 0 | 46 | 3 | 0·43 | − 0·04 | * | * | * | * |
| | Scarborough ℳ | 51 | 28 | 43·2 | 31·7 | 37·7 | − 1·0 | 3 | 39 | 4 | 0·73 | + 0·25 | 19·0 | ? | 33 | ? |
| | York | 51 | 22 | 40·7 | 30·0 | 35·6 | − 2·6 | 0 | 45 | 2 | 0·10 | − 0·38 | 8·4 | + 0·1 | 14 | 0 |
| | Spurn Head | 50 | 28 | 43·6 | 36·4 | 40·1 | + 1·7 | 4 | 21 | 3 | 0·13 | − 0·24 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 52 | 23 | 43·9 | 32·1 | 38·2 | + 0·8 | 5 | 37 | 4 | 0·16 | − 0·33 | 32·5 | +20·7 | 55 | + 35 |
| | Yarmouth | 52 | 32 | 43·3 | 37·7 | 40·6 | + 3·1 | 4 | 17 | 3 | 0·16 | − 0·34 | * | * | * | * |
| | Geldeston | 53 | 31 | 44·3 | 35·1 | 39·9 | + 1·7 | 6 | 27 | 4 | 0·22 | − 0·20 | 32·9 | +20·0 | 55 | + 33 |
| | Cambridge | 54 | 24 | 44·1 | 31·4 | 38·0 | 0·0 | 6 | 40 | 4 | 0·16 | − 0·23 | 33·6 | +21·4 | 56 | + 35 |
| | Felixstowe | 52 | 31 | 43·6 | 37·3 | 40·6 | + 2·6 | 4 | 19 | 1 | 0·06 | ? | 38·6 | ? | 64 | ? |
| | Rothamsted | 52 | 29 | 41·7 | 33·7 | 37·9 | + 0·5 | 0 | 29 | 3 | 0·17 | − 0·42 | 35·0 | +24·0 | 58 | + 39 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 52 | 20 | 39·1 | 31·3 | 35·4 | − 2·6 | 0 | 46 | 2 | 0·06 | − 0·41 | * | * | * | * |
| | Loughborough | 51 | 18 | 41·9 | 30·0 | 36·2 | − 2·0 | 0 | 41 | 1 | 0·14 | − 0·36 | * | * | * | * |
| | Stamford (Duddington) | 51 | 20 | 41·3 | 31·6 | 36·6 | − 0·7 | 0 | 38 | 3 | 0·06 | − 0·43 | * | * | * | * |
| | Cheadle ℳ | 50 | 26 | 40·3 | 30·8 | 35·7 | − 1·3 | 0 | 44 | 1 | 0·22 | − 0·46 | * | * | * | * |
| | Shirley (near Solihull) | 49 | 24 | 40·4 | 31·6 | 36·2 | − 1·2 | 0 | 41 | 2 | 0·31 | ? | * | * | * | * |
| | Churchstoke ℳ | 50 | 19 | 39·7 | 26·8 | 33·5 | − 4·6 | 0 | 60 | 2 | 0·21 | − 0·47 | 29·7 | +18·5 | 50 | +30 |
| | Hereford ℳ | 50 | 19 | 39·3 | 29·8 | 34·7 | − 4·2 | 0 | 51 | 2 | 0·18 | − 0·42 | * | * | * | * |
| | Cirencester | 48 | 26 | 40·6 | 32·7 | 36·8 | − 1·1 | 0 | 36 | 1 | 0·10 | − 0·62 | 35·8 | +23·8 | 60 | +39 |
| | Oxford | 51 | 25 | 42·7 | 33·1 | 38·1 | − 0·4 | 2 | 33 | 2 | 0·13 | − 0·39 | 36·7 | +25·5 | 61 | +41 |
| 5. ENGLAND, S. | London | 54 | 29 | 44·3 | 36·3 | 40·5 | + 1·1 | 6 | 23 | 3 | 0·10 | − 0·40 | 23·3† | +17·3† | 39† | +28† |
| | Cranley ℳ | | | | | | | | | | | | * | * | * | * |
| | Dungeness | 53 | 32 | 45·0 | 39·1 | 42·2 | + 2·7 | 14 | 8 | 3 | 0·16 | − 0·44 | * | * | * | * |
| | Hastings (St. Leonards) | 53 | 31 | 43·6 | 35·1 | 39·5 | 0·0 | 4 | 26 | 2 | 0·09 | − 0·56 | 38·1 | +24·0 | 62 | +38 |
| | Southampton | 54 | 28 | 44·9 | 32·9 | 38·7 | − 1·5 | 6 | 35 | 3 | 0·06 | − 0·71 | 34·1 | +21·1 | 56 | +34 |
| | Hurst Castle | 52 | 30 | 44·4 | 35·3 | 40·0 | − 0·9 | 7 | 26 | 1 | 0 03 | − 0·65 | * | * | * | * |
| | Shaftesbury ℳ | 49 | 28 | 36·6 | 32·1 | 34·4 | − 3·0 | 0 | 53 | 1 | 0·05 | − 0·65 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 47 | 26 | 40·1 | 30·6 | 35·5 | − 4·6 | 0 | 46 | 1 | 0·03 | − 1·94 | * | * | * | * |
| | Glasgow | 47 | 22 | 36·5 | 27·8 | 32·3 | − 6·6 | 0 | 68 | 1 | 0·01 | − 0·94 | 5·6 | − 0·6 | 10 | − 1 |
| | Ardrossan | 49 | 27 | 40·4 | 31·0 | 35·9 | − 4·2 | 0 | 43 | 1 | 0·05 | − 0·93 | * | * | * | * |
| | Glenlee § | 48 | 15 | 38·7 | 21·9 | 30·6 | − 6·6 | 0 | 80 | 1 | 0·04 | − 1·55 | * | * | * | * |
| | Douglas (Isle of Man) | 49 | 25 | 42·8 | 32·7 | 38·0 | − 2·6 | 2 | 35 | 1 | 0·20 | − 0·82 | 29·0 | +17·0 | 50 | +28 |
| 7. ENGLAND, N.W. | Stonyhurst | 49 | 24 | 38·7 | 30·2 | 34·6 | − 3·5 | 0 | 52 | 2 | 0·30 | − 0·68 | 11·8 | + 2·8 | 20 | + 4 |
| | Blackpool ℳ | 49 | 22 | 40·8 | 29·4 | 35·3 | − 3·5 | 0 | 47 | 1 | 0·21 | − 0·49 | 18·8 | + 9·8 | 32 | +16 |
| | Manchester (Prestwich) | 51 | 25 | 41·1 | 30·2 | 35·9 | − 2·4 | 0 | 43 | 1 | 0·16 | − 0·55 | 10·1 | ? | 17 | ? |
| | Liverpool Obsy. (Bidston) | 49 | 23 | 39·4 | 31·6 | 35·7 | − 3·6 | 0 | 44 | 1 | 0·11 | − 0·41 | 16·0 | ? | 27* | ? |
| | Llandudno ℳ | 53 | 26 | 42·9 | 32·7 | 38·0 | − 3·5 | 3 | 35 | 1 | 0·08 | − 0·58 | 36·6 | +25·8 | 62 | +43 |
| | Holyhead | 48 | 30 | 41·7 | 34·3 | 38·2 | − 4·1 | 0 | 27 | 2 | 0·24 | − 0·50 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 48 | 23 | 41·1 | 29·9 | 35·7 | − 1·9 | 0 | 44 | 1 | 0·27 | − 0·91 | * | * | * | * |
| | Pembroke | 49 | 30 | 42·3 | 36·3 | 39·4 | − 2·7 | 1 | 21 | 2 | 0·89 | + 0·01 | 37·6 | + 24·6 | 63 | +41 |
| | Clifton | 50 | 26 | 42·1 | 33·3 | 37·9 | − 2·1 | 0 | 32 | 1 | 0·11 | − 0·70 | * | * | * | * |
| | Arlington (N. Devon) | 48 | 27 | 40·6 | 32·1 | 36·5 | − 3·7 | 0 | 39 | 2 | 0·52 | − 0·38 | * | * | * | * |
| | Cullompton ℳ | 51 | 25 | 41·7 | 32·0 | 37·0 | − 3·2 | 0 | 35 | 3 | 0·28 | − 0·32 | 39·6 | +29·0 | 65 | +47 |
| | Falmouth | 52 | 32 | 43·9 | 37·8 | 41·0 | − 2·6 | 5 | 17 | 2 | 0·22 | − 0·86 | 23·3 | + 9·6 | 38 | +16 |
| | Plymouth | 52 | 29 | 41·7 | 35·0 | 38·5 | − 3·6 | 0 | 25 | 2 | 0·17 | − 0·73 | 36·1 | +23·5 | 58 | +38 |
| | Prawle Point | 50 | 30 | 43·6 | 35·9 | 39·9 | − 1·8 | 4 | 24 | 3 | 0·08 | − 0·57 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 46 | 29 | 41·1 | 34·1 | 37·7 | − 4·2 | 0 | 30 | 1 | 0·35 | ? | * | * | * | * |
| | Londonderry | 47 | 25 | 40·4 | 31·0 | 35·9 | − 4·5 | 0 | 43 | 1 | 0·30 | − 0·62 | * | * | * | * |
| | Edenfel (Omagh) | 44 | 22 | 37·9 | 29·3 | 33·8 | − 4·4 | 0 | 57 | 1 | 0·41 | − 0·40 | * | * | * | * |
| | Belmullet | 45 | 30 | 42·7 | 34·3 | 38·7 | + 0·5 | 2 | 29 | 6 | 0·29 | − 0·96 | * | * | * | * |
| | Markree Castle | 46 | 18 | 40·9 | 27·9 | 34·7 | − 5·3 | 0 | 51 | 1 | 0·20 | − 0·58 | 23·6 | +13·3 | 41 | +22 |
| | Armagh | 46 | 23 | 40·5 | 29·5 | 35·2 | − 4·2 | 0 | 48 | 1 | 0·38 | − 0·17 | 30·0 | +19·2 | 52 | +32 |
| | Donaghadee | 48 | 27 | 43·4 | 33·0 | 38·4 | − 2·5 | 4 | 34 | 2 | 0·20 | − 0·52 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND S. | Dublin | 51 | 28 | 43·1 | 33·6 | 38·5 | − 3·5 | 3 | 31 | 1 | 0·17 | − 0·41 | 30·8 | +16·8 | 52 | +28 |
| | Parsonstown | 46 | 25 | 41·3 | 31·0 | 36·4 | − 3·8 | 0 | 39 | 1 | 0·26 | − 0·44 | 26·1 | +12·8 | 44 | +22 |
| | Kilkenny | 46 | 23 | 41·6 | 30·4 | 36·2 | − 5·0 | 0 | 41 | 1 | 0·15 | − 0·65 | * | * | * | * |
| | Roche's Point | 48 | 32 | 45·4 | 38·7 | 42·2 | − 1·4 | 15 | 9 | 1 | 0·10 | − 1·12 | * | * | * | * |
| | Valencia | 48 | 32 | 46·6 | 38·9 | 42·9 | − 2·0 | 19 | 9 | 1 | 0·24 | − 1·16 | 23·8 | +10·6 | 40 | +17 |
| | Killarney | 50 | 26 | 46·0 | 35·7 | 41·1 | − 2·3 | 11 | 27 | 1 | 0·32 | ? | * | * | * | * |
| | Foynes | 47 | 27 | 42·5 | 31·0 | 37·0 | − 4·4 | 1 | 41 | 1 | 0·15 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 50 | 38 | 46·9 | 40·0 | 43·6 | − 1·8 | 20 | 6 | 1 | 0·08 | − 0·77 | 25·9 | ? | 42 | ? |
| | Jersey | 55 | 32 | 46·4 | 39·6 | 43·1 | + 0·7 | 18 | 7 | 2 | 0·29 | − 0 46 | 32·0 | +15·0 | 51 | +23 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

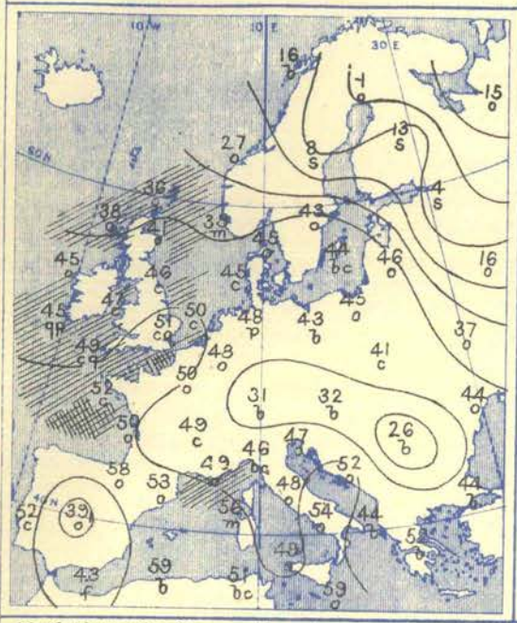
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 22nd January.

### Temperature and Weather.

8 a.m.

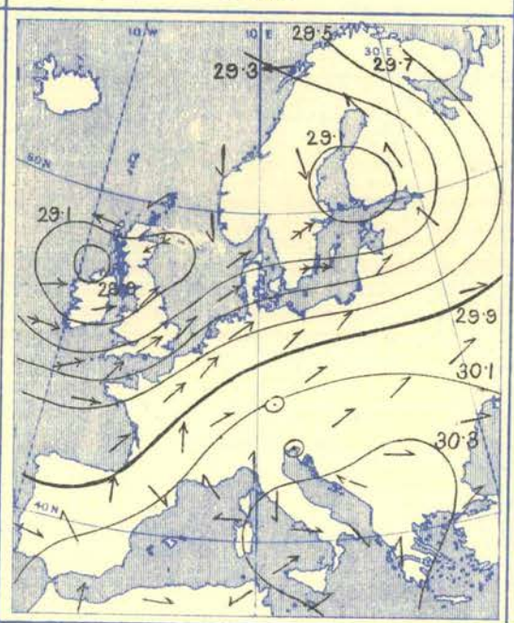


*Weather* in morning fine over the eastern parts of England, as well as in Austria, Greece, northern Italy and the south of France. Cloudy or dull elsewhere, with rain in Scotland and passing showers in the west of our Islands; rain falling also at Brest, Copenhagen and Helsingfors, and snow at Hernösand, Kuopio and St. Petersburg. Rain falling later in nearly all parts of our Islands and the north and west of France, and snow in several parts of northern Europe.

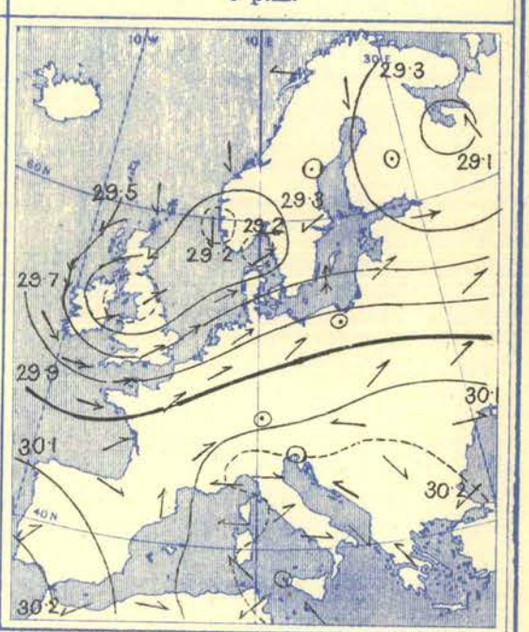
*Temperature* fallen generally, but risen over the Baltic, the south of Sweden and the Gulf of Finland. Morning readings highest, 59° at Algiers, 58° at Biarritz, 57° at Malta, and 56° at Sanguinaire; above 50° at several of the Mediterranean and Spanish coast stations, and also in the west of France. Lowest, −15° Fahr. at Archangel, −1° at Haparanda, +4° at St. Petersburg, and 8° at Hernösand; below the freezing point over the northern parts of Russia and Scandinavia generally, and also in Austria. Rising during day to 50° and upwards at most of the English stations and to 55° at Jersey; exceeding 55° in many parts of southern Europe, and reaching 63° at Cagliari and Malta.

### Barometer and Wind.

8 a.m.



6 p.m.



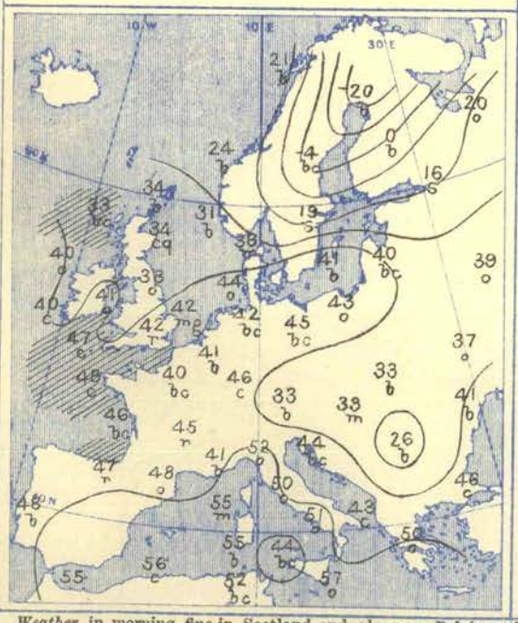
*Wind* Westerly in the south of Ireland, and South-Westerly over England, the north of France, the Netherlands, Germany, Denmark, the Baltic, and the Gulf of Finland; strong to a gale in force over the southern parts of our Islands and also over the northern part of the Baltic. Light to moderate from between North and East over the northern parts of Scandinavia, and strong to a gale from the same quarters in the north of Scotland. Calm or light from the Westward in Austria and the south of Russia; North-Westerly in Italy; Southerly in the south of France. Subsequently veering to the Northward or North-Westward in Ireland; no important change occurring elsewhere.

*Barometer* highest, 30·3 ins. and upwards over Italy, Greece and the Baltic provinces; 30·1 ins. and upwards in an anticyclone covering the greater part of southern and eastern Europe. Lowest, 28·9 ins. and less in a depression with its centre over the north of Ireland; 29·1 ins. and less in another disturbance over Finland. Both depressions moving eastwards later, and Irish disturbance partially filling up.

## Monday, 23rd January.

### Temperature and Weather.

8 a.m.

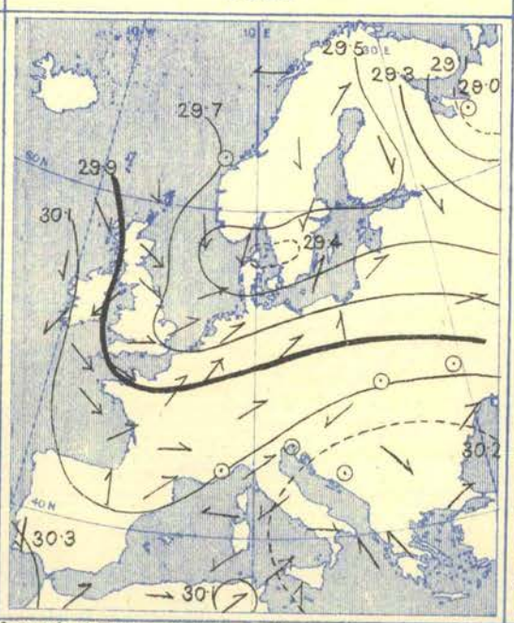


*Weather* in morning fine in Scotland and also over Belgium, the north of France, and the northern parts of Scandinavia and Finland. Cloudy or dull in most other parts of Europe, with rain in the south of England, as well as at the Helder, Belfort, Lyons and Biarritz; snow falling over the south of Sweden and the Gulf of Finland. Showers falling later in many parts of the United Kingdom, (with snow or sleet at several of the northern stations), and steady rain in the east and south of France.

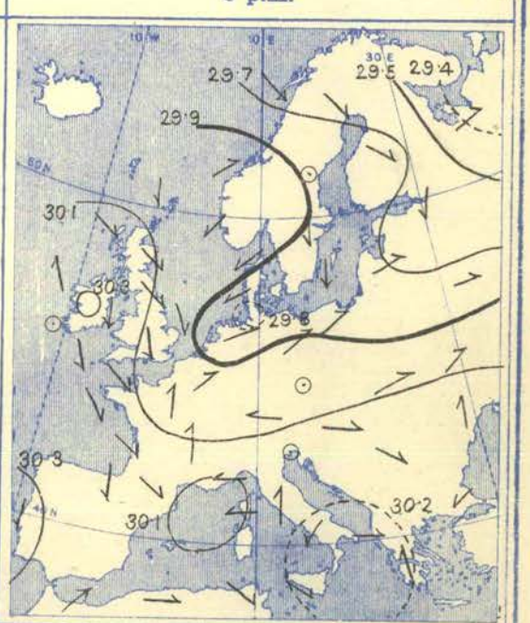
*Temperature* fallen generally, but risen considerably over northern and central Russia. Morning readings highest, 57° at Malta, 56° at Algiers, and 55° at Sanguinaire, Cagliari and Nemours; above 50° at most of the Mediterranean stations. Lowest, −20° at Haparanda, −13° at Uleaborg, −4° at Hernösand, and 0° zero at Kuopio; considerably below the freezing point over northern Europe generally, and very little above it in Scotland and central Ireland. Daily maxima below 40° in the north of our Islands, and below 45° on all but our south coasts; thermometer exceeding 50° in many parts of France, and exceeding 55° over Italy and the south of Spain. Frost occurring over the United Kingdom at night.

### Barometer and Wind.

8 a.m.



6 p.m.

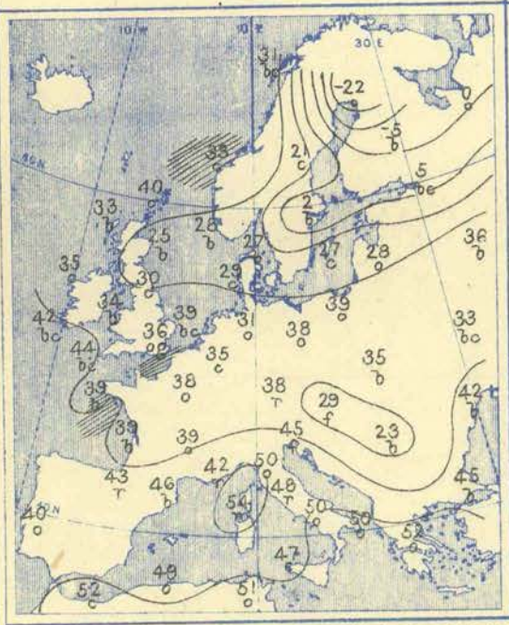


*Wind* moderate to strong from the Northward or North-Westward over all the more western and northern parts of our Islands, from the Westward in the south and east of England, and from the South-Westward over the Netherlands, Denmark, Germany and the Baltic. Northerly over Scandinavia and northern Russia, and strong in force in the south of Norway. Light from the Southward over the southern parts of France and Italy; variable over northern Italy. Subsequently veering to the North-Westward or Northward in the south and east of England; no important change occurring elsewhere.

*Barometer* highest, 30·2 ins. and upwards in an anticyclone covering all the more south-eastern parts of Europe, and also in another system over the south-western parts of the Spanish Peninsula. Lowest, 29·0 ins. and less in a depression over the extreme north of Russia; 29·4 ins. and less in another disturbance over the south of Sweden. New anticyclone spreading later over the western parts of our Islands. Both depressions moving eastwards later; Swedish disturbance partially filling up.

## Tuesday, 24th January.

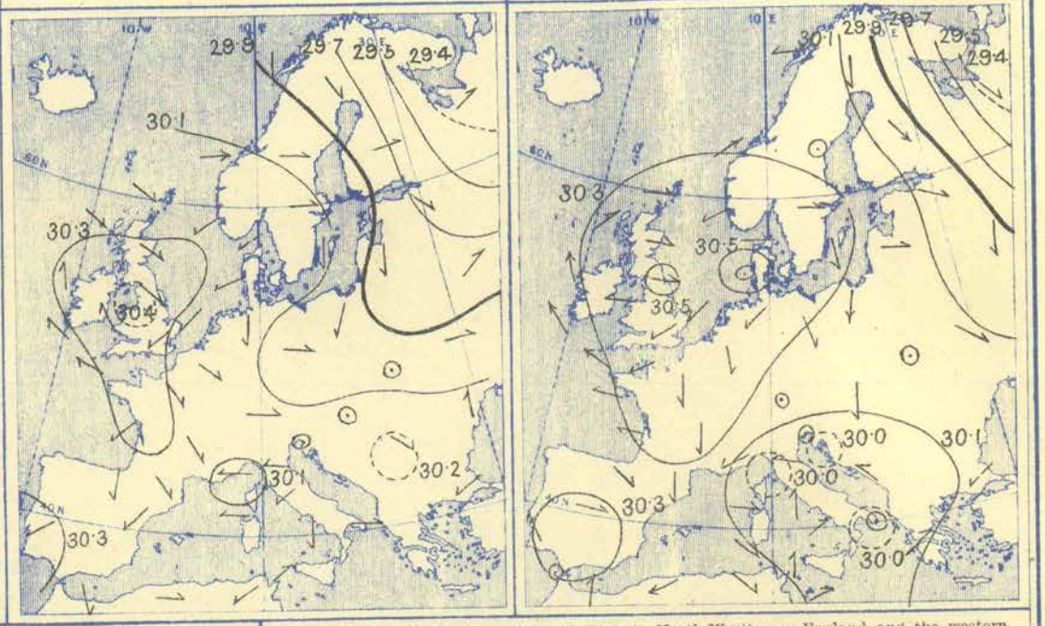
### Temperature and Weather. 8 a.m.



*Weather* in morning fine over nearly the whole of our Islands and the west of France, as well as in Russia and Scandinavia. Cloudy or dull in most other parts of Europe, with fog over Austria and southern Germany; rain at Swinemünde, Munich, Biarritz, Nice, and Rome, and snow at the Helder. A little rain falling later in the Shetlands and Hebrides, and larger quantities in Italy; snow occurring in several parts of Scandinavia and Germany—fall being heavy at Munich.

*Temperature* fallen generally. Morning readings highest, 54° at Sanguinaire, 52° at Patras and Oran, and 51° at La Calle; above 45° at most of the Mediterranean stations. Lowest, −22° at Haparanda, −8° at Uleaborg, and −5° at Kuopio; considerably below the freezing point over northern Europe generally, as well as in some parts of Ireland and Scotland. Daily maxima below 40° at several of our own northern stations, and below 45° on all but our extreme south-west coasts; thermometer exceeding 50° in the west and south of France, and exceeding 55° in Spain and south Italy. Sharp frost occurring over our Islands at night.

### Barometer and Wind. 8 a.m. 6 p.m.

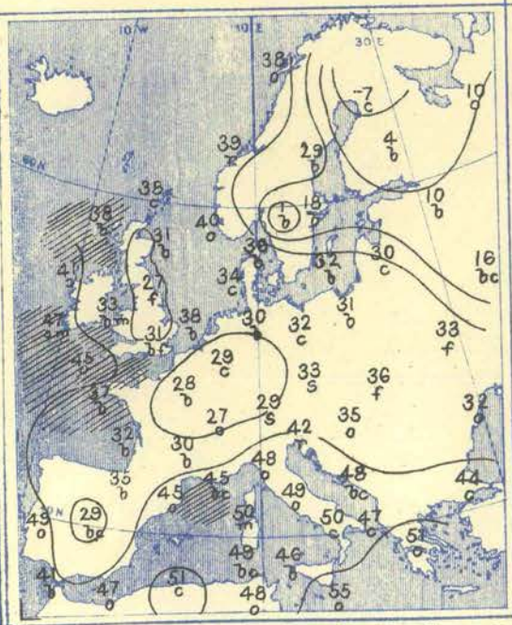


*Wind* light from the Northward (North-East to North-West) over England and the western parts of the Continent generally, but from the South-Eastward on our own western coasts. Westerly over Scotland, Scandinavia, and northern Russia, and strong in force at Christiansund; light from the South-Westward in the south of Russia; calm in Austria; Easterly or North-Easterly over northern Italy, but Westerly or South-Westerly in the south of that country. Subsequently increasing to a strong breeze from the South-Eastward in the west and south of Ireland; no important change occurring elsewhere.

*Barometer* highest, 30·4 ins. and upwards over the north of England and the south of Scotland; 30·1 ins. and upwards in an anticyclone embracing all but the north-eastern parts of Europe. Lowest, 29·4 ins. and less in a depression over northern Russia. Anticyclone increasing later in height, but barometer beginning to fall a little on our own extreme south-west coasts.

## Wednesday, 25th January.

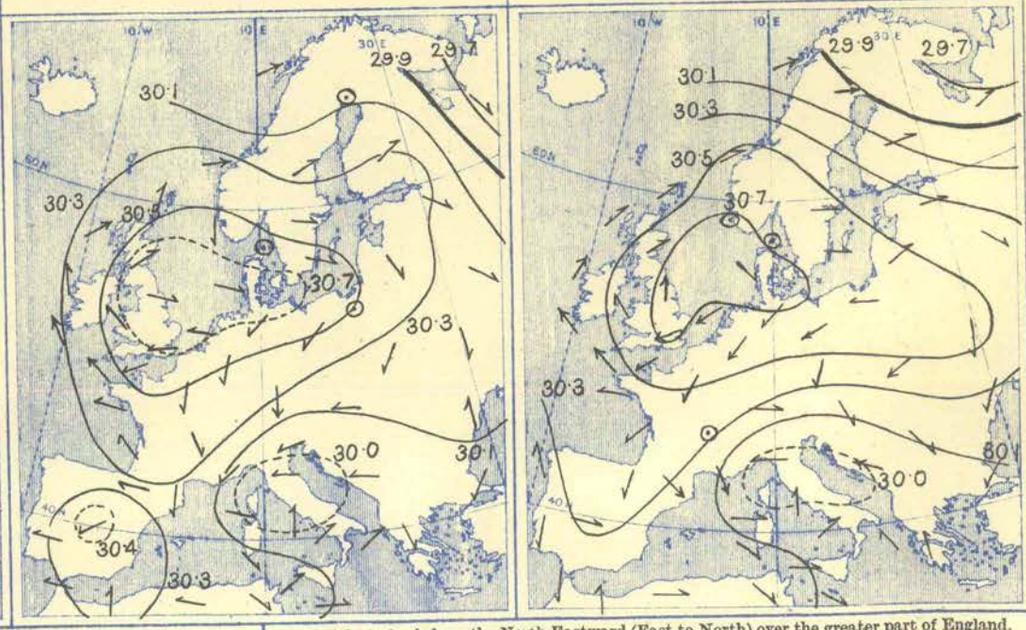
### Temperature and Weather. 8 a.m.



*Weather* in morning fine over western and northern Europe as a whole, but foggy in several parts of Great Britain; cloudy on our own extreme west and south-west coasts and also in the west of Norway, with rain at Christiansund. Cloudy or dull also in most of the central and southern countries, with rain at Breslau and Trieste and snow at Prague and Munich. Very little change occurring later, but rain setting in on the north-west coasts of Norway.

*Temperature* fallen in most parts of Great Britain and also in the central and southern parts of the Continent, but risen elsewhere. Morning readings highest, 55° at Malta, 51° at Patras and Algiers, and 50° at Sanguinaire and Athens; above 45° at most of the Mediterranean and Spanish coast stations, and also in the south of Ireland. Lowest, −7° at Haparanda, +1° at Karlstad, 2° at Uleaborg, and 4° at Kuopio; considerably below the freezing point in many parts of northern Europe, and also in the inland parts of Great Britain. Remaining below 40° all day at several of our own northern and central stations, and below 45° on all but our south-west coasts; exceeding 45° in the west and south of France, and exceeding 55° in many parts of Spain and Italy.

### Barometer and Wind. 8 a.m. 6 p.m.



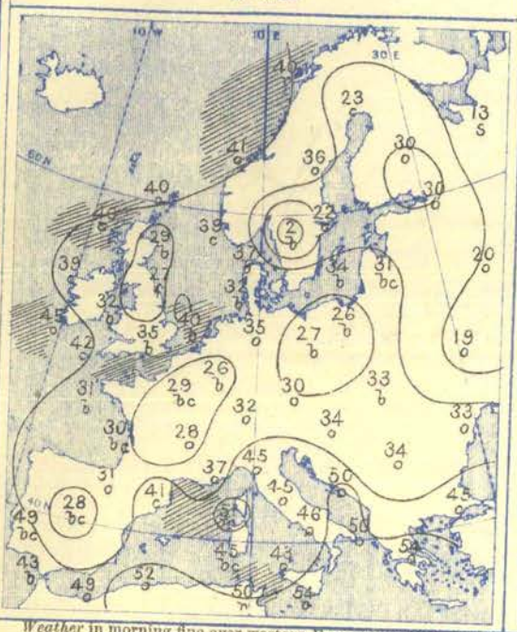
*Wind* light to fresh from the North-Eastward (East to North) over the greater part of England, France, Spain, and central Europe, but Southerly or South-Westerly over central and southern Italy. Strong from the South-Eastward or Southward in Ireland, with a gale at Roche's Point; South-Westerly in Scotland as well as in Scandinavia and Finland, and strong in force in the west of Norway; Northerly over the central parts of Russia. Subsequently blowing a moderate gale from the Southward or South-Eastward on our extreme western coasts generally; no decided change occurring elsewhere.

*Barometer* highest, 30·6 ins. and upwards over the greater part of England, the Netherlands, the North Sea, and the east of Scotland; 30·2 ins. and upwards in an anticyclone embracing the greater part of Europe. Lowest, 30·0 ins. and less in the north of Scandinavia, and also in a depression lying over northern Italy and the Gulf of Genoa. No important change occurring during day.

## Thursday, 26th January.

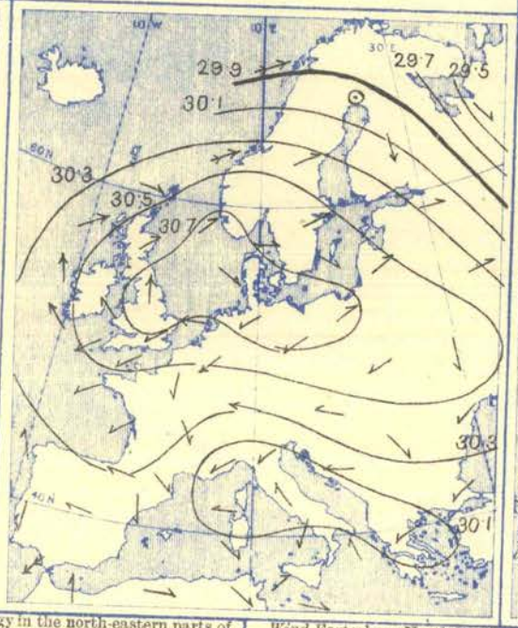
### Temperature and Weather.

8 a.m.

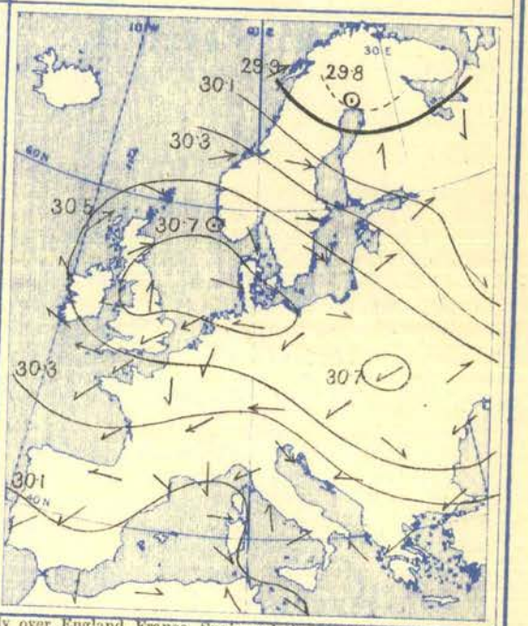


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over western Europe generally, but foggy in the north-eastern parts of Great Britain and cloudy in the south of Ireland, as well as in the Shetlands and Hebrides. Cloudy or dull in most of the eastern and central countries, and also in Scandinavia with rain at Bodö and snow at Archangel; fine in Denmark, north Germany, and the extreme south of Scandinavia. A little snow falling later at Biarritz; no important change occurring elsewhere.

*Temperature* fallen in France and Germany, risen in Scandinavia and northern Russia, changed very irregularly elsewhere. Morning readings highest, 54° at Athens and Malta, 52° at Algiers and 51° at Cagliari, above 45° at most of the Mediterranean, Adriatic and Spanish coast stations. Lowest, (1) 2° at Karlstad, 13° at Archangel and 22° at Stockholm; (2) 23° at Leith and York, and 26° at Loughborough, below the freezing point in many parts of Great Britain. Daily maxima below 40° at several of our own northern stations and below 45° on all but our south-west coasts. Thermometer exceeding 50° in many parts of southern Europe and reaching 59° at Brindisi and Palermo. Sharp frost occurring in many parts of our Islands at night.

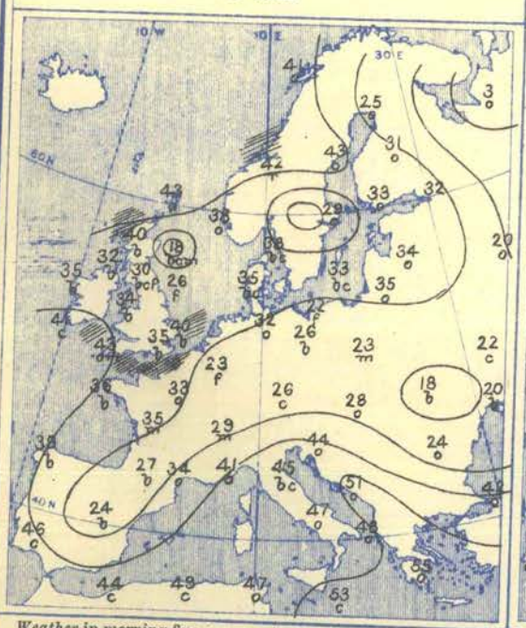
*Wind* Easterly or North-Easterly over England, France, Spain and the greater part of central and eastern Europe; light to fresh in force generally, but strong on some of the more exposed parts of our own eastern and southern coasts. Fresh to strong from the Southward or South-Eastward in Ireland. South-Westerly or Westerly in Scotland and Scandinavia, with a gale in the west of Norway. North-Westerly over northern Russia. No important change occurring during day, but gale subsiding gradually in west of Norway.

*Barometer* highest, 30·7 ins. and upwards over Denmark, north Germany, the North Sea and the eastern and central parts of Great Britain; 30·3 ins. and upwards in an anticyclone embracing all but the southern and extreme northern parts of Europe. Lowest, 29·5 ins. and less in a depression over northern Russia; 30·0 ins. and less in a shallow disturbance over Corsica. Slight fall of barometer taking place later over western and central Europe, but general distribution of pressure remaining unchanged.

## Friday, 27th January.

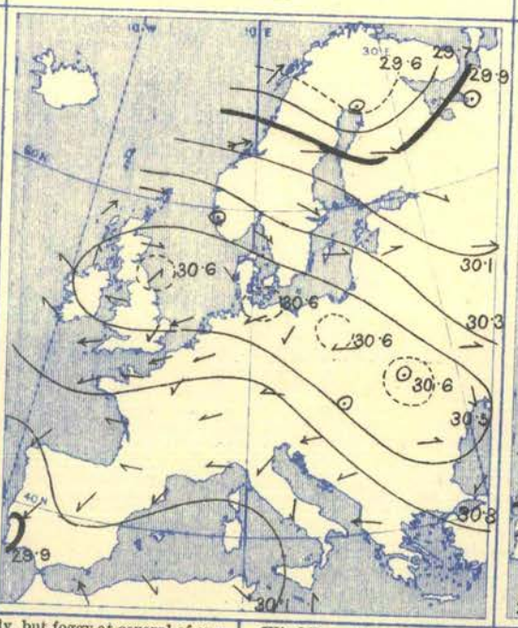
### Temperature and Weather.

8 a.m.

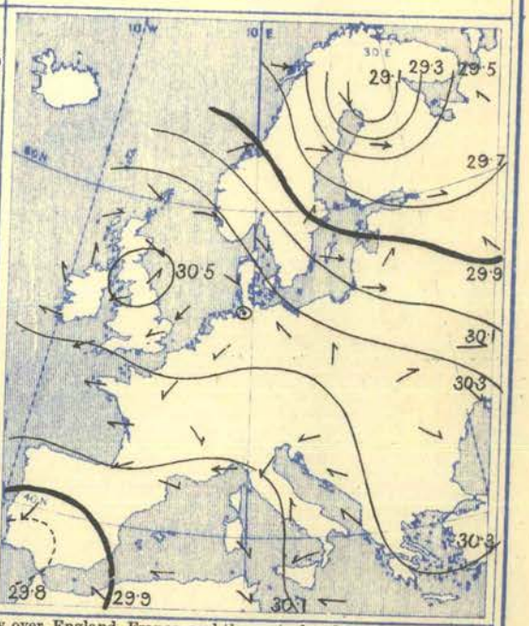


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over western and central Europe generally, but foggy at several of our own northern stations, and dull over the western parts of the English Channel and France. Dull in Scandinavia and Russia, with rain at Christiansund; cloudy also over Italy, Greece, the south of France, and the north-east of Spain, with rain at Turin and Rome, and snow at Barcelona. Heavy rain falling later in the extreme south of France, and a little snow at Cambridge; mock suns and a lunar halo seen at Wick.

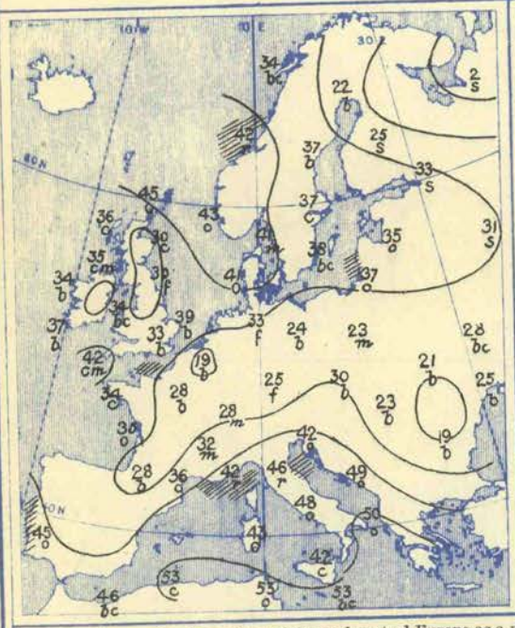
*Temperature* risen over England and France, and also over Scandinavia, Denmark and Russia, fallen in most other countries. Morning readings highest, 55° at Patras, 53° at Malta, and 51° at Lesina, above 45° at most of the Mediterranean and Adriatic stations. Lowest, (1) 3° at Archangel, 10° at Karlstad, and 18° at Lemberg; (2) 18° at Aberdeen and 24° at Leith; below the freezing point in many parts of our Islands and northern and central Europe. Daily maxima below 40° at some of our own northern stations, and below 45° over the United Kingdom generally; below 40° also in many parts of France, but thermometer reaching 50° or more in several parts of southern Europe, and touching 59° at Cagliari.

*Wind* Easterly or North-Easterly over England, France, and the central and southern parts of the Continent generally, and strong in force at some of our own eastern and southern stations. Light to fresh from the South-Eastward in Ireland. Westerly in Scotland, Scandinavia, Denmark and Russia and strong to a gale in force in the west of Norway. No important change occurring later.

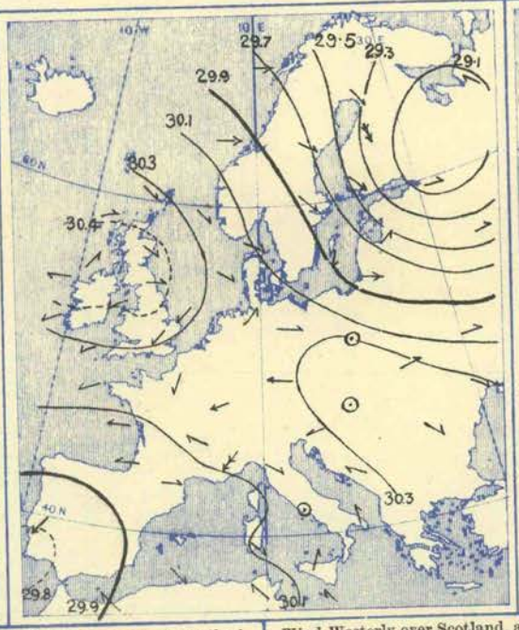
*Barometer* highest, 30·6 ins. and upwards in the north-east of England, and also in some parts of Germany and eastern Austria. 30·2 ins. and upwards in an anticyclone embracing the greater part of our Islands and the Continent. Lowest, 29·6 ins. and less in a depression over the north of Scandinavia, 29·9 ins. and less in another disturbance off the south-west of Portugal. Barometer falling over western Europe during day and anticyclone beginning to break up.

## Saturday, 28th January.

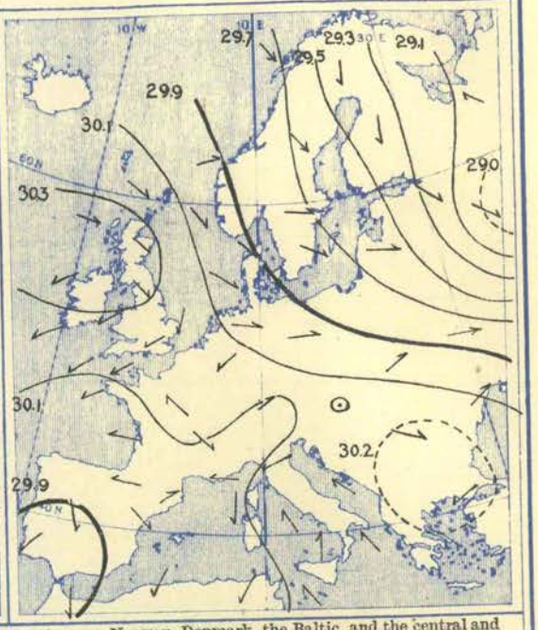
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over western and central Europe as a whole, but foggy in the north of England and the south of Scotland, as well as in many parts of Germany. Dull in the extreme north of Scotland and the west of Norway, with rain at Christiansund; fine in Sweden, dull in northern Russia, with snow in several places. Dull also over Italy, the Spanish Peninsula and the extreme south of France, with rain at Nice and Florence. A little rain falling later at several of our own northern and eastern stations.

*Temperature* risen over Denmark and Germany, as well as over the greater part of Russia and the south of Scandinavia; fallen elsewhere. Morning readings highest, 54° at La Calle, and 53° at Algiers, Tunis, Sfax and Malta; above 45° at several of the Mediterranean and Spanish coast stations; above 40° in the Shetlands and the west of Norway. Lowest, (1) 2° at Archangel and 20° at Uleaborg; (2) 19° at Brussels, Cracow and Hermanstadt, and 21° at Lemberg; below the freezing point over central Ireland and the northern and central parts of Great Britain. Remaining below 40° all day at several of our own western and northern stations. Exceeding 45° in the south of France, and reaching 50° at Nice.

*Wind* Westerly over Scotland, and also over Norway, Denmark, the Baltic, and the central and southern parts of Russia, and strong in force in the west of Norway; blowing a gale from the Northward at Kuopio and Helsingfors. Light to fresh from the Eastward or North-Eastward over England, Ireland, France, south Germany and the Spanish Peninsula; a North-Easterly gale reported at Nice. Light to moderate from the Southward or South-Eastward over the southern parts of Italy and the Adriatic. No important change occurring during day.

*Barometer* highest, 30·4 ins. and upwards over all the more northern parts of our Islands; 30·3 ins. and upwards over Turkey, and the eastern parts of Austria and Germany; 30·2 ins. and upwards in an anticyclone covering the greater part of western, central and south-eastern Europe. Lowest, 29·1 ins. and less in a well-marked depression over northern Russia; 29·8 ins. and less in a shallow disturbance off the south of Spain. Anticyclone giving way gradually during day, and new depression approaching the Norwegian coasts from the westward.

### GENERAL NOTES.

At the beginning of the week barometrical pressure was high over southern Europe, and low in the west and north, the centres of two well-marked depressions being found respectively over Finland and the north of Ireland. Strong South-Westerly winds, reaching the force of a gale in places, were reported in most of the north-western and northern countries, but in Scotland and Norway the wind was North-Easterly, the weather being in a squally, unsettled state generally, with frequent falls of rain in our Islands, and snow in Sweden and northern Russia.

On the 22nd and 23rd the depressions both moved eastwards and gradually filled up, while a large anticyclone began to spread over western Europe from the Atlantic, the latter system afterwards increasing both in size and height, and eventually embracing nearly the whole of Europe. The weather consequently improved very materially, while the wind shifted to the Eastward or North-Eastward over England and the western and central parts of the Continent, and to the Westward in Scotland and Scandinavia. Temperature also fell steadily, sharp frost being experienced in most places, and especially in Scotland, where the thermometer on the night of the 26th fell below 15°. Towards the close of the week the anticyclone began to break up, while a large depression moved eastwards across the northern parts of Scandinavia, causing strong Westerly winds in that region, with some rain and snow. In our Islands, however, the weather remained fair and dry until quite the end of the period.

In the south of France some very heavy falls of rain occurred both on the 23rd and the 27th, the unsettled weather being due to shallow depressions which passed over northern Italy and the Gulf of Genoa. In the latter instance the depression was extremely shallow and ill-defined.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 20.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 14·6 | ? | 28 | ? | WESTBOURNE (Emsworth)* | 35·4* | +22·4 | 58* | +35 |
| STRATHPEFFER SPA | 23·7 | +15·9 | 45 | +30 | WATERGATE (Emsworth) | | | | |
| EDINBURGH | 14·3 | + 5·6 | 26 | +10 | BRIGHTON | 39·2 | +27·2 | 64 | +43 |
| MORPETH | 23·2 | ? | 41 | ? | BOGNOR* | 42·3* | ? | 69* | ? |
| NEWCASTLE-ON-TYNE | 6·0 | ? | 11 | ? | EASTBOURNE | 36·3 | +23·3 | 60 | +39 |
| OSWALDKIRK (Yorkshire) | 15·7 | + 5·8 | 27 | +10 | VENTNOR HOSPITAL | 38·4 | ? | 63 | ? |
| HOLLESLEY BAY | 42·2 | ? | 70 | ? | SOUTHPORT | 18·6 | ? | 32* | ? |
| SHEFFIELD | 10·6 | ? | 18 | ? | COLWYN BAY | 35·4 | ? | 60 | ? |
| WORKSOP | 17·4 | + 7·9 | 29 | +13 | TENBY | 39·6 | +25·6 | 66 | +42 |
| THURCASTON (Leicestershire) | 26·2 | +16·4 | 44 | +27 | NEWQUAY | 32·8 | +19·6 | 53 | +32 |
| PLUMSTEAD COMMON | 34·2 | ? | 56 | ? | TORQUAY | 26·8* | +12·8 | 43* | +20 |
| MARGATE | 36·1 | +24·9 | 59 | +41 | GUERNSEY | 23·3* | +10·9 | 37* | +16 |

* The values at Westbourne, Bognor, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| DATE OF REPORT. | NAMES OF STATIONS. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| Week ending Dec. 17th, 1898 | Churchstoke | 58 | 31 | 52·5 | 41·8 | 47·4 | + 9·0 | 39 | 1 | 1 | 0·05 | −0·65 | 16·1 | + 7·6 | 31 | +14 |
| ,, ,, ,, 31st, ,, | Hereford | 52 | 33 | 48·2 | 38·3 | 43·5 | + 5·3 | 26 | 10 | 6 | 1·15 | +0·62 | — | — | — | — |
| ,, ,, ,, ,, ,, | Killarney | 55 | 34 | 50·4 | 41·1 | 45·9 | + 2·8 | 31 | 3 | 7 | 3·24 | ? | — | — | — | — |
| ,, ,, ,, ,, ,, | Morpeth | — | — | — | — | — | — | — | — | — | — | — | 10·2 | ? | 21 | — |
| ,, ,, ,, ,, ,, | Newquay | — | — | — | — | — | — | — | — | — | — | — | 9·1 | − 2·2 | 16 | − 5 |

WYMAN & SONS, L^TD LITH., 63, CARTER LANE

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL XVI. NO. 5.] *Third Series.* WEEK ENDING SATURDAY, FEBRUARY 4TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 26.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 47 | 18 | 39·2 | 30·6 | 34·9 | 3 below | 0 | − 7 | 50 | + 8 | 5 | − 26 | 208 | − 5 |
| | 1. SCOTLAND, EAST | 49 | 14 | 39·0 | 29·4 | 34·2 | 3 below | 0 | − 8 | 55 | +10 | 4 | − 32 | 240 | + 17 |
| | 2. ENGLAND, N.E. | 45 | 20 | 40·4 | 31·8 | 36·1 | 2 below | 0 | − 7 | 41 | + 1 | 44 | + 13 | 151 | − 53 |
| | 3. ENGLAND, EAST | 47 | 20 | 41·1 | 30·7 | 35·9 | 2 below | 0 | − 8 | 43 | − 3 | 79 | + 45 | 126 | −110 |
| | 4. MIDLAND COUNTIES | 47 | 19 | 39·1 | 29·4 | 34·3 | 4 below | 0 | −10 | 54 | + 8 | 72 | + 29 | 157 | − 77 |
| | 5. ENGLAND SOUTH | 47 | 22 | 40·3 | 30·9 | 35·6 | 4 below | 0 | −10 | 45 | + 8 | 99 | + 50 | 88 | - 103 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 44 | 15 | 39·6 | 29·7 | 34·7 | 5 below | 0 | −10 | 51 | +19 | 40 | − 7 | 161 | 0 |
| | 7. ENGLAND, N.W. | 45 | 23 | 40·2 | 31·6 | 35·9 | 4 below | 0 | − 8 | 43 | + 9 | 67 | + 29 | 119 | - 52 |
| | 8. ENGLAND, S.W. | 48 | 18 | 41·0 | 31·3 | 36·2 | 5 below | 0 | −15 | 41 | +14 | 102 | + 33 | 82 | - 56 |
| | 9. IRELAND, NORTH | 46 | 17 | 40·5 | 30·9 | 35·7 | 5 below | 0 | −13 | 44 | +17 | 47 | − 14 | 152 | + 11 |
| | 10. IRELAND, SOUTH | 55 | 22 | 42·8 | 31·9 | 37·3 | 5 below | 2 | −18 | 36 | +15 | 104 | + 12 | 100 | − 12 |
| | —CHANNEL ISLANDS | 54 | 31 | 44·9 | 36·0 | 40·5 | 4 below | 8 | −12 | 23 | +10 | 188 | + 84 | 29 | - 34 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 26.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 3 | 1 | 11 less | 23 | − 4 | 5·5 | − 0·8 | 9 | + 1 | 16 | + 1 | 44 | + 14 | 17 | + 6 |
| | 1. SCOTLAND, EAST | 2 | less than ½ | 6 less | 23 | + 3 | 3·7 | + 0·5 | 11 | 0 | 19 | 0 | 52 | + 8 | 20 | + 3 |
| | 2. ENGLAND, N.E. | 5 | 4 | 1 less | 23 | + 4 | 2·6 | + 0·3 | 11 | − 1 | 18 | − 2 | 48 | − 1 | 17 | 0 |
| | 3. ENGLAND, EAST | 4 | 2 | 2 less | 23 | + 3 | 2·3 | 0·0 | 15 | + 2 | 24 | + 2 | 92 | + 30 | 30 | +10 |
| | 4. MIDLAND COUNTIES | 3 | 3 | 3 less | 23 | + 4 | 3·7 | + 0·9 | 10 | − 1 | 16 | − 3 | 62 | + 14 | 23 | + 5 |
| | 5. ENGLAND, SOUTH | 3 | 4 | 2 less | 22 | + 3 | 3·3 | + 0·2 | 15 | + 2 | 24 | + 3 | 82 | + 25 | 28 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 1 | 1 | 12 less | 23 | 0 | 6·2 | − 0·1 | 15 | + 5 | 25 | + 8 | 48 | + 6 | 18 | + 2 |
| | 7. ENGLAND, N.W. | 3 | 2 | 5 less | 23 | + 2 | 5·0 | + 1·5 | 14 | + 3 | 22 | + 4 | 57 | + 12 | 21 | + 4 |
| | 8. ENGLAND, S.W. | 2 | 5 | 3 less | 23 | + 1 | 7·2 | + 2·8 | 17 | + 2 | 26 | + 3 | 67 | + 4 | 23 | + 1 |
| | 9. IRELAND, NORTH | 4 | 2 | 7 less | 26 | + 2 | 4·1 | 0·0 | 15 | + 3 | 25 | + 4 | 65 | + 13 | 24 | + 5 |
| | 10. IRELAND, SOUTH | 3 | 5 | 4 less | 25 | + 3 | 6·3 | + 1·7 | 10 | − 4 | 16 | − 7 | 65 | + 1 | 23 | 0 |
| | — CHANNEL ISLANDS | 3 | 5 | 3 less | 24 | 0 | 5·2 | + 1·3 | 19 | + 2 | 29 | + 3 | 65 | − 3 | 22 | − 2 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was generally fair over the Kingdom as a whole, but slight rain was experienced at the commencement of the week, a little snow in some places a few days later, and considerable falls of rain or wet snow in the west and south at the end of the period.

*Temperature* was again below the mean, the deficit ranging from 2° in England E. and N.E., to 5° in Scotland W., England S.W. and Ireland. The highest of the maxima, which occurred on rather irregular dates, ranged from 55° in Ireland S. and 54° in the Channel Islands (on the 4th) to 49° in Scotland E. and to 44° in Scotland W. The lowest of the minima were registered either on the 3rd or 4th, and ranged from between 14° and 18° in Scotland, and between 17° and 22° in Ireland, to between 18° and 23° over England. In the Channel Islands the lowest reading was 31°.

*Rainfall* was less than the mean in all districts, the fall over Scotland being especially slight. Considerable quantities, however, fell in the south of England at the end of the week.

*Bright Sunshine* exceeded the mean in most districts, but was deficient in Ireland S., England N.E., and the Midland Counties, and only just equal to the normal in Scotland E. The percentage of the possible duration ranged from 29° in the Channel Islands to 18° in England N.E., and 16° in Ireland S., the Midland Counties, and Scotland N.

*Barometer and Wind.*—During the greater part of the period the barometer was highest in the west and north-west, and lowest in the east and south. No depressions of importance appeared immediately over our Islands, but by the end of the week pressure was decreasing briskly in the west and south, and a depression was spreading over those regions from the Atlantic. Moderate winds from North or North-West in the north, and from East or North-East in the south were most general over the United Kingdom, but by Saturday they had veered to the South-Eastward and Southward over Ireland and the west of England, and had increased to the force of a strong breeze or gale.

207 | 90 Wy. & S., Ltd.
613 | 70 2 | 99.

# II.—DATA from which the SUMMARY on page 25 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 45 | 31 | 39·6 | 35·4 | 37·5 | − 1·2 | 0 | 32 | 5 | 0·23 | − 0·61 | * | * | * | * |
| | Stornoway | 45 | 30 | 40·9 | 32·1 | 36·5 | − 2·4 | 0 | 39 | 4 | 0·14 | − 0·92 | 6·9 | − 3·1 | 12 | − 5 |
| | Wick | 43 | 30 | 39·7 | 32·4 | 36·1 | − 1·9 | 0 | 41 | 6 | 0·17 | − 0·33 | * | * | * | * |
| | Lairg $ | 47 | 18 | 40·8 | 26·2 | 23·5 | − 3·1 | 0 | 60 | 5 | 0·12 | − 0·68 | * | * | * | * |
| | Glencarron $ | 41 | 24 | 37·1 | 29·3 | 33·2 | − 3·8 | 0 | 62 | 1 | 0·07 | − 2·03 | * | * | * | * |
| | Fort Augustus $ | 44 | 20 | 38·2 | 28·1 | 33·2 | − 4·8 | 0 | 62 | 2 | 0·07 | − 0·89 | 9·6 | + 4·4 | 17 | + 7 |
| | Fort William $ | 42 | 24 | 38·2 | 30·4 | 34·3 | − 4·2 | 0 | 54 | 0 | — | − 2·08 | 13·5 | + 4·8 | 23 | + 7 |
| 1. SCOTLAND E. | Nairn | 42 | 24 | 39·7 | 28·6 | 34·2 | − 3·1 | 0 | 55 | 3 | 0·08 | − 0·30 | * | * | * | * |
| | Aberdeen | 42 | 28 | 38·3 | 31·1 | 34·7 | − 3·1 | 0 | 51 | 4 | 0·10 | − 0·50 | 16·4 | + 2·2 | 28 | + 3 |
| | Braemar $ | 39 | 14 | 34·6 | 26·2 | 30·4 | − 4·0 | 0 | 81 | 2 | 0·03 | − 0·60 | 9·8† | + 0·3† | 17† | + 1† |
| | Ochtertyre $ | 49 | 20 | 42·1 | 27·3 | 34·7 | − 1·9 | 0 | 52 | 1 | 0·04 | − 1·03 | * | * | * | * |
| | Leith $ | 44 | 27 | 40·7 | 32·4 | 36·6 | − 2·4 | 0 | 38 | 0 | — | − 0·48 | * | * | * | * |
| | Marchmont $ | 41 | 24 | 38·7 | 30·7 | 34·7 | − 2·0 | 0 | 51 | 0 | — | − 0·68 | 10·8 | − 0·9 | 18 | − 3 |
| 2. ENGLAND, N.E. | Alnwick Castle | 42 | 20 | 39·4 | 30·9 | 35·2 | − 1·8 | 0 | 48 | 5 | 0·27 | − 0·28 | * | * | * | * |
| | Durham | 42 | 20 | 39·1 | 29·6 | 34·4 | − 3·2 | 0 | 53 | 4 | 0·53 | + 0·08 | 8·7 | − 3·8 | 15 | − 7 |
| | Shields | 42 | 26 | 40·4 | 32·1 | 36·3 | − 2·7 | 0 | 40 | 4 | 0·42 | − 0·05 | * | * | * | * |
| | Scarborough Ⓜ | 44 | 28 | 42·2 | 31·8 | 37·0 | − 2·0 | 1 | 36 | 5 | 0·76 | + 0·28 | 15·3 | ? | 25 | ? |
| | York | 45 | 27 | 40·1 | 31·3 | 35·7 | − 2·8 | 0 | 44 | 4 | 0·16 | − 0·32 | 11·7 | + 1·7 | 19 | + 3 |
| | Spurn Head | 45 | 32 | 40·9 | 35·1 | 38·0 | − 0·8 | 0 | 28 | 5 | 0·26 | − 0·11 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 44 | 25 | 41·8 | 31·3 | 36·6 | − 1·4 | 0 | 38 | 7 | 0·29 | − 0·19 | 15·1 | + 1·7 | 24 | + 2 |
| | Yarmouth | 44 | 24 | 40·4 | 32·9 | 36·7 | − 1·2 | 0 | 37 | 4 | 0·18 | − 0·31 | * | * | * | * |
| | Geldeston | 47 | 23 | 42·3 | 30·9 | 36·6 | − 2·1 | 1 | 39 | 6 | 0·25 | − 0·17 | 18·4 | + 4·3 | 30 | + 7 |
| | Cambridge | 46 | 22 | 42·1 | 28·4 | 35·3 | − 3·1 | 0 | 48 | 3 | 0·16 | − 0·24 | 12·3 | − 1·4 | 20 | − 2 |
| | Felixstowe | 46 | 25 | 40·3 | 31·3 | 35·8 | − 2·2 | 0 | 43 | 3 | 0·20 | ? | 16·0 | ? | 26 | ? |
| | Rothamsted | 43 | 20 | 39·4 | 29·2 | 34·3 | − 3·4 | 0 | 54 | 3 | 0·32 | − 0·26 | 12·6 | + 0·1 | 20 | 0 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 44 | 22 | 40·6 | 29·6 | 35·1 | − 3·1 | 0 | 48 | 3 | 0·12 | − 0·33 | * | * | * | * |
| | Loughborough | 43 | 21 | 40·1 | 30·1 | 35·1 | − 3·4 | 0 | 48 | 3 | 0·20 | − 0·30 | * | * | * | * |
| | Stamford (Duddington) | 47 | 19 | 40·1 | 29·6 | 34·9 | − 2·9 | 0 | 50 | 5 | 0·35 | − 0·14 | * | * | * | * |
| | Cheadle Ⓜ | 41 | 25 | 38·7 | 30·3 | 34·5 | − 2·7 | 0 | 53 | 4 | 0·16 | − 0·52 | * | * | * | * |
| | Shirley (near Solihull) | 40 | 21 | 38·3 | 29·6 | 34·0 | − 3·7 | 0 | 56 | 4 | 0·32 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 40 | 20 | 37·3 | 27·2 | 32·3 | − 5·9 | 0 | 68 | 3 | 0·17 | − 0·51 | 10·7 | − 2·0 | 17 | − 4 |
| | Hereford Ⓜ | 39 | 20 | 38·0 | 29·1 | 33·6 | − 5·4 | 0 | 59 | 2 | 0·06 | − 0·54 | * | * | * | * |
| | Cirencester | 41 | 20 | 38·9 | 28·9 | 33·9 | − 4·1 | 0 | 57 | 3 | 0·43 | − 0·27 | 13·5 | + 0·2 | 22 | 0 |
| | Oxford | 42 | 22 | 40·1 | 30·6 | 35·4 | − 3·6 | 0 | 46 | 3 | 0·54 | + 0·02 | 13·1 | + 0·6 | 21 | 0 |
| 5. ENGLAND, S. | London | 44 | 24 | 41·1 | 31·3 | 36·2 | − 3·6 | 0 | 41 | 3 | 0·42 | − 0·08 | 6·0† | − 0·8† | 10† | − 2† |
| | Cranley Ⓜ | 43 | 22 | 40·2 | 29·4 | 34·8 | − 3·0 | 0 | 50 | 2 | 0·37 | ? | * | * | * | * |
| | Dungeness | 44 | 23 | 41·3 | 31·3 | 36·3 | − 3·5 | 0 | 40 | 5 | 0·46 | − 0·14 | * | * | * | * |
| | Hastings (St. Leonards) | 42 | 29 | 39·6 | 32·2 | 35·9 | − 3·9 | 0 | 43 | 3 | 0·51 | − 0·12 | 17·1 | + 1·5 | 27 | + 2 |
| | Southampton | 43 | 26 | 40·9 | 30·6 | 35·8 | − 4·2 | 0 | 43 | 2 | 0·43 | − 0·32 | 16·1 | + 1·4 | 26 | + 3 |
| | Hurst Castle | 47 | 28 | 42·3 | 31·7 | 37·0 | − 3·8 | 1 | 36 | 1 | 0·41 | − 0·25 | * | * | * | * |
| | Shaftesbury Ⓜ | 39 | 27 | 36·4 | 29·6 | 33·0 | − 4·8 | 0 | 63 | 2 | 0·51 | − 0·17 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 41 | 25 | 38·6 | 28·7 | 33·7 | − 6·3 | 0 | 58 | 1 | 0·01 | − 1·91 | * | * | * | * |
| | Glasgow | 40 | 25 | 38·3 | 30·4 | 34·4 | − 4·4 | 0 | 53 | 1 | 0·01 | − 0·95 | 9·9 | + 2·5 | 17 | + 5 |
| | Ardrossan | 42 | 27 | 40·3 | 30·7 | 35·5 | − 4·7 | 0 | 46 | 1 | 0·02 | − 0·96 | * | * | * | * |
| | Glenlee $ | 43 | 15 | 39·5 | 25·9 | 32·7 | − 4·6 | 0 | 65 | 2 | 0·06 | − 1·46 | * | * | * | * |
| | Douglas (Isle of Man) | 44 | 27 | 41·4 | 33·0 | 37·2 | − 3·6 | 0 | 34 | 2 | 0·13 | − 0·87 | 20·0 | + 6·7 | 33 | +11 |
| 7. ENGLAND, N.W. | Stonyhurst | 42 | 23 | 39·4 | 30·6 | 35·0 | − 3·5 | 0 | 49 | 4 | 0·08 | − 0·90 | 12·3 | + 2·0 | 20 | + 3 |
| | Blackpool Ⓜ | 44 | 23 | 40·7 | 28·9 | 34·8 | − 4·2 | 0 | 50 | 2 | 0·12 | − 0·58 | 19·2 | + 8·7 | 31 | +13 |
| | Manchester (Prestwich) | 43 | 24 | 38·5 | 30·5 | 34·5 | − 4·0 | 0 | 53 | 3 | 0·13 | − 0·55 | 6·5 | ? | 11 | ? |
| | Liverpool Obsy. (Bidston) | 41 | 24 | 38·7 | 30·9 | 34·8 | − 5·0 | 0 | 50 | 4 | 0·38 | − 0·13 | 15·2 | ? | 25 | ? |
| | Llandudno Ⓜ | 45 | 27 | 41·7 | 33·9 | 37·8 | − 3·9 | 0 | 29 | 4 | 0·14 | − 0·49 | 11·6 | − 0·4 | 19 | − 2 |
| | Holyhead | 44 | 31 | 41·9 | 35·0 | 38·5 | − 3·7 | 0 | 25 | 2 | 0·11 | − 0·60 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 48 | 18 | 42·6 | 26·1 | 34·4 | − 3·5 | 2 | 56 | 2 | 0·33 | − 0·82 | * | * | * | * |
| | Pembroke | 43 | 30 | 41·4 | 33·9 | 37·7 | − 4·3 | 0 | 30 | 2 | 0·13 | − 0·72 | 16·5 | + 2·0 | 27 | + 3 |
| | Clifton | 43 | 26 | 38·9 | 30·6 | 34·8 | − 5·3 | 0 | 50 | 3 | 0·98 | + 0·19 | * | * | * | * |
| | Arlington (N. Devon) | 42 | 24 | 39·4 | 29·7 | 34·6 | − 5·7 | 0 | 52 | 2 | 0·73 | − 0·17 | * | * | * | * |
| | Cullompton Ⓜ | 44 | 22 | 40·4 | 29·3 | 34·9 | − 5·3 | 0 | 50 | 3 | 0·43 | − 0·17 | 13·0 | + 0·7 | 21 | + 2 |
| | Falmouth | 48 | 31 | 42·8 | 34·2 | 38·5 | − 5·3 | 2 | 28 | 2 | 0·58 | − 0·52 | 18·1 | + 2·8 | 28 | + 5 |
| | Plymouth | 42 | 30 | 40·4 | 33·7 | 37·1 | − 5·3 | 0 | 34 | 1 | 0·70 | − 0·17 | 17·7 | + 3·5 | 28 | + 5 |
| | Prawle Point | 47 | 29 | 42·1 | 33·0 | 37·6 | − 4·6 | 0 | 32 | 3 | 0·47 | − 0·13 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 44 | 31 | 41·1 | 35·6 | 38·4 | − 3·4 | 0 | 25 | 5 | 0·15 | ? | * | * | * | * |
| | Londonderry | 42 | 28 | 39·2 | 30·6 | 34·9 | − 5·9 | 0 | 50 | 1 | 0·08 | − 0·82 | * | * | * | * |
| | Edenfel (Omagh) | 39 | 22 | 38·0 | 27·3 | 32·7 | − 5·9 | 0 | 65 | 3 | 0·32 | − 0·46 | * | * | * | * |
| | Belmullet | 46 | 30 | 42·6 | 32·6 | 37·6 | − 5·6‡ | 2 | 33 | 7 | 0·11 | − 1·09 | * | * | * | * |
| | Markree Castle | 45 | 17 | 41·8 | 27·3 | 34·6 | − 5·5 | 0 | 52 | 3 | 0·21 | − 0·50 | 17·0 | + 5·2 | 28 | + 7 |
| | Armagh | 41 | 23 | 38·9 | 28·3 | 33·6 | − 6·2 | 0 | 59 | 2 | 0·08 | − 0·44 | 12·8 | + 0·8 | 21 | + 1 |
| | Donaghadee | 44 | 29 | 42·1 | 34·4 | 38·3 | − 2·7 | 0 | 27 | 4 | 0·13 | − 0·58 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND S. | Dublin | 45 | 30 | 42·8 | 34·4 | 38·6 | − 3·6 | 2 | 27 | 4 | 0·19 | − 0·39 | 1·8 | −13·3 | 3 | −21 |
| | Parsonstown | 45 | 22 | 40·0 | 26·9 | 33·5 | − 7·2 | 0 | 60 | 2 | 0·19 | − 0·49 | 9·3 | − 4·3 | 15 | − 7 |
| | Kilkenny | 45 | 24 | 41·1 | 29·1 | 35·1 | − 6·3 | 0 | 48 | 4 | 0·49 | − 0·29 | * | * | * | * |
| | Roche's Point | 52 | 31 | 44·4 | 35·6 | 40·0 | − 3·8 | 7 | 24 | 3 | 0·90 | − 0·30 | * | * | * | * |
| | Valencia | 54 | 26 | 45·7 | 33·7 | 39·7 | − 5·2 | 10 | 32 | 2 | 0·79 | − 0·55 | 18·4 | + 4·2 | 30 | + 7 |
| | Killarney | 55 | 26 | 43·8 | 30·9 | 37·2 | − 6·0 | 5 | 39 | 2 | 0·76 | ? | * | * | * | * |
| | Foynes | 50 | 28 | 41·7 | 32·4 | 37·1 | − 4·3 | 0 | 34 | 3 | 0·33 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 54 | 35 | 46·4 | 37·6 | 42·0 | − 3·3 | 12 | 12 | 3 | 0·63 | − 0·19 | 17·9 | ? | 28 | ? |
| | Jersey | 50 | 31 | 43·4 | 34·4 | 38·9 | − 3·6 | 4 | 28 | 3 | 0·40 | − 0·33 | 23·3 | + 4·5 | 36 | + 7 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked $ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

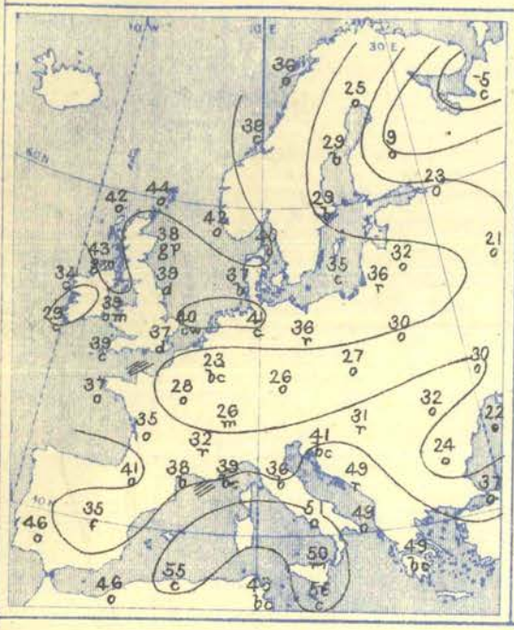
‡ The corresponding value in last week's Report should read " − 4·5."

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 29th January.

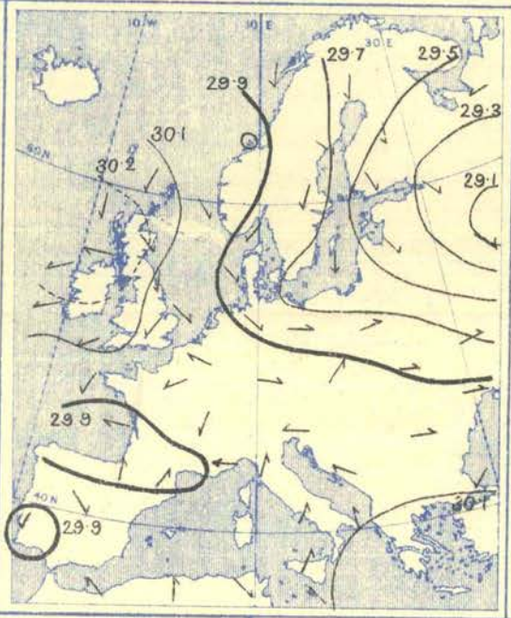
### Temperature and Weather.

8 a.m.

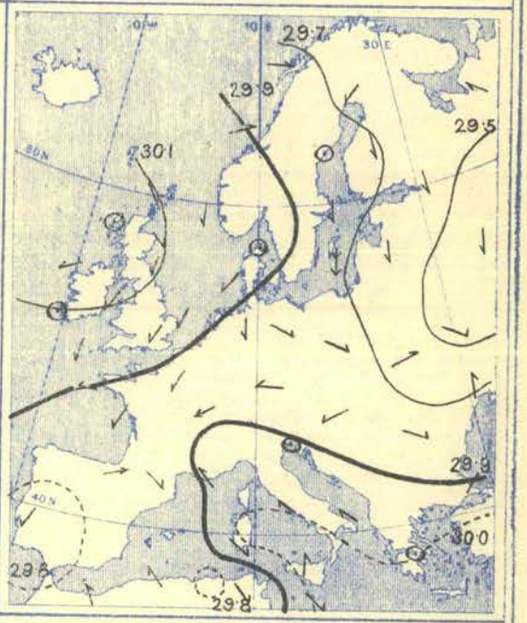


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning clearing up as a whole, but still rather rainy at many of our stations—notably in the north and east, foggy at many of the German stations, dull and rainy at others, very unsettled over Russia. Rain falling later in many places, but amounts small except at Nice, where 0·35 in. fell. Fog reported locally over our Islands, snow at Limoges.

*Temperature* risen temporarily over many parts of our Islands—most in the north where the rise was considerable. Morning readings highest, 50° to 56° over some parts of the Mediteranean, 43° in the north of Ireland, 42° at Stornoway, Spurn Head and the Helder; distribution very irregular. Lowest, (1) −8° at Archangel, +9° at Knopio, 21° at Moscow, 30° at Kief, 32° at Riga; (2) 28° at Parsonstown and Paris, 36° to 37° over central England, 25° at Lisbon. Rising to between 40° and 46° over our Islands later, and touching 46° at Brest.

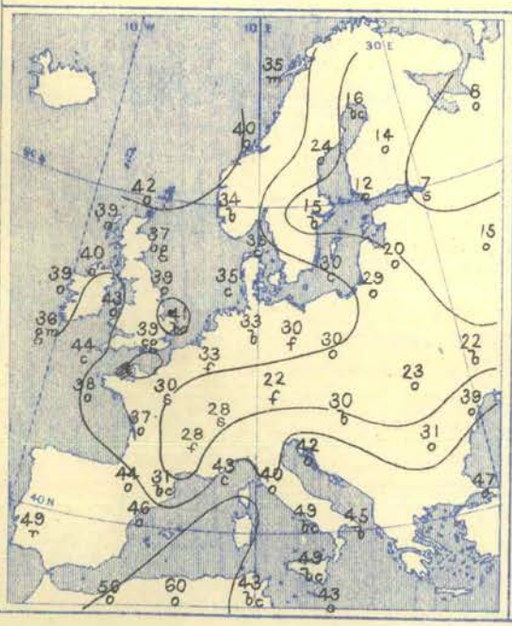
*Wind* (1) light over our Islands—North-Westerly in Scotland, Northerly to North-Easterly elsewhere. Very light over the Continent, Northerly over Scandinavia, South-Westerly over Germany, Easterly over the western parts of France. No important change over our Islands later.

*Barometer* highest, 30·2 ins. and more over the north-west of the British Isles, and above 30·0 ins. in the eastern parts of France and the west of Germany, as well over the Adriatic and Italy. Lowest, 29·1 ins. and less over central Russia; 29·9 ins. and less over the south-western parts of the Spanish Peninsula. Falling a little in our Islands and over France all day. Depression in Spain growing more important.

## Monday, 30th January.

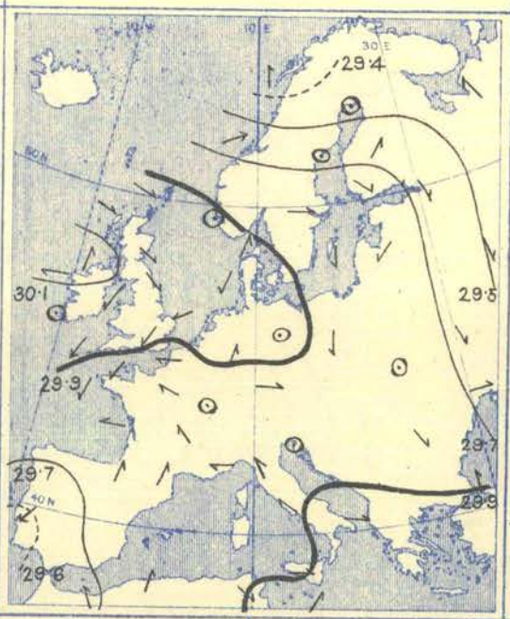
### Temperature and Weather.

8 a.m.

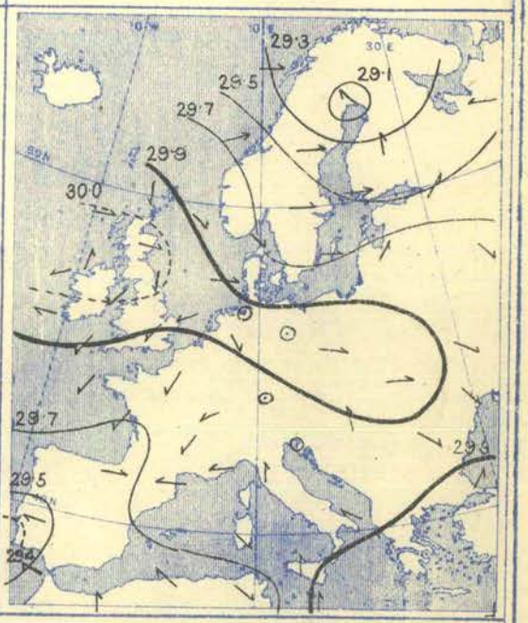


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning dull and gloomy over almost the whole of western Europe; foggy in places, as well as in Germany, with very slight showers locally—of rain over the British Islands, and snow in various parts of the Continent—considerable rain at Christiansund later, and slight showers in a few places, but slight temporary clearance of the sky reported locally, most in the east of England.

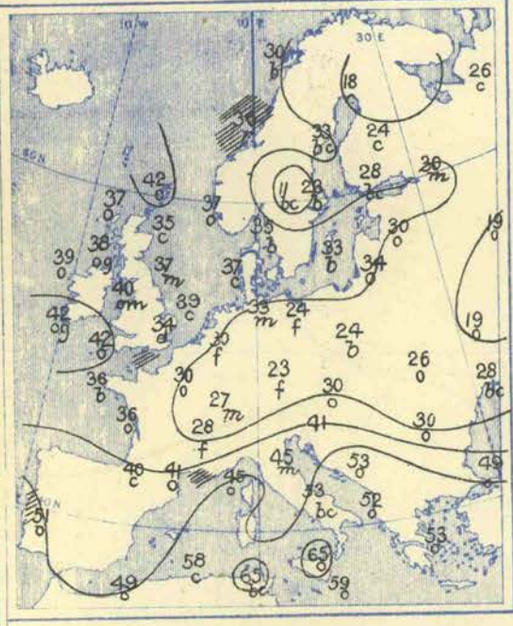
*Temperature* risen slightly over England, Ireland, and France. Morning readings highest, 60° at Algiers, 43° in the south of France, 44° at Biarritz and Scilly, and between 43° and 40° at most of our southern and western stations. Lowest, 8° at Archangel, 15° at Karlstad, Stockholm, and Moscow, 22° at Kief, 26° at Breslau, and 30° at Berlin and Paris. Rising later to between 40° and 47° over our Islands, and to 77° in some parts of Algeria; continuing as low as 30° to 40° over Germany all day.

*Wind* of very little force anywhere; Westerly over our northern stations and Norway, North-Easterly in the south of our Islands and the north of France. Chiefly North-Westerly in Germany, very variable elsewhere. No important change later.

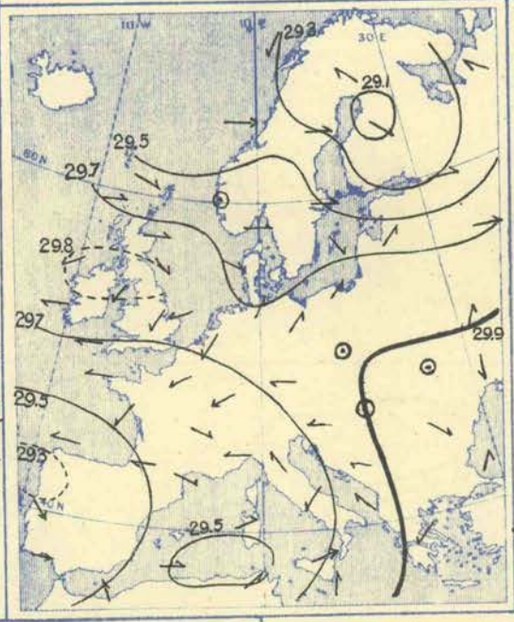
*Barometer* highest, 30·0 ins. and more over the northern and western parts of our Islands, and exceeding 29·9 ins. all over the North Sea, the Netherlands, and greater part of Germany. Lowest, below 29·4 ins. over Lapland, and below 29·6 ins. in the south-west of Spain; falling slightly over our Islands all day, but no important change in general distribution.

## Tuesday, 31st January.

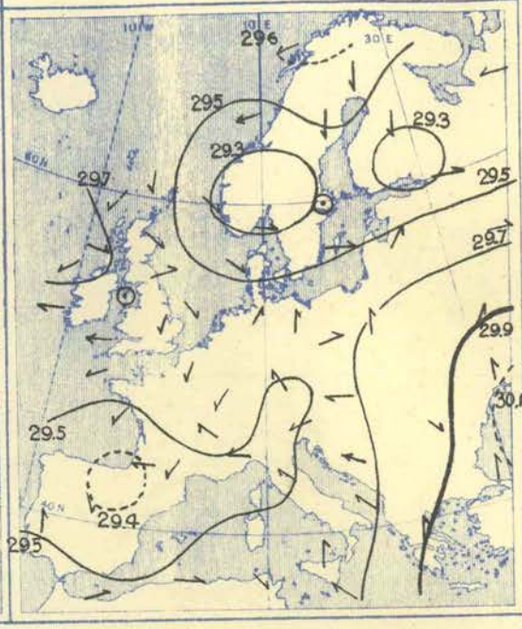
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning dull and gloomy over our Islands; foggy in the east of France and north-west of Germany; rather unsettled over northern Europe, but temporarily fair at many of the Baltic stations; a few showers falling later over Germany, Scandinavia, Scotland, and Ireland, and slight snow in a few places.

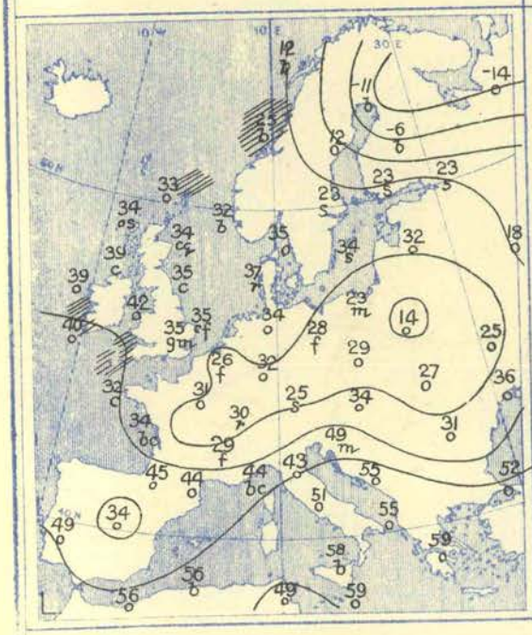
*Temperature* in morning highest, 65° at La Calle, 59° at Malta, 42° at Scilly and Valencia, 40° at Holyhead. Lowest, (1) 15° at Uleaborg, 24° at Kuopio, 28° at Helsingfors; (2) 19° at Kiev and Moscow, 20° at Kharkov, 23° at Munich, 24° at Cracow and Berlin, 27° at Belfort, 30° at Paris; (3) 33° at Cambridge, 34° at Nairn. Rising later to 46° at Belmullet, and 43° in the south of Ireland, but scarcely exceeding 40° at any of the English stations, though touching 70° at Sfax.

*Wind* light to moderate in force; mainly Westerly over the northern half of Europe, and Easterly in the south, but very variable at the more central stations. No important change later.

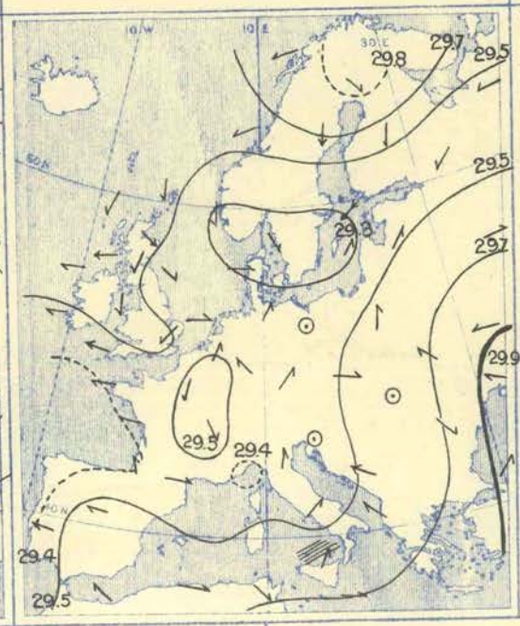
*Barometer* highest, (1) 29·9 ins. and more to 29·8 ins. over central and south-eastern Europe; (2) 29·8 ins. and more in an anticyclone covering the northern parts of Ireland and England. Lowest, (1) 29·1 ins. and less in a depression over Finland; (2) 29·4 ins. and less in a depression lying over and near Spain and Portugal; falling over the United Kingdom and France all day, but beginning to rise in the north of Scandinavia.

## Wednesday, 1st February.

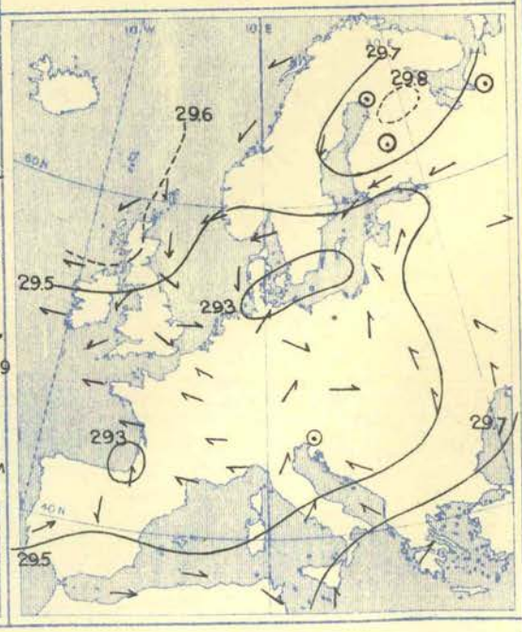
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning fine and clear over northern Europe, fair over the greater part of the British Islands, but showery in a few places. Somewhat unsettled over France, Denmark, and south-eastern Europe also. Snow or hail in the northern parts of England and Scotland later, as well as at various stations lying to the eastward of the North Sea.

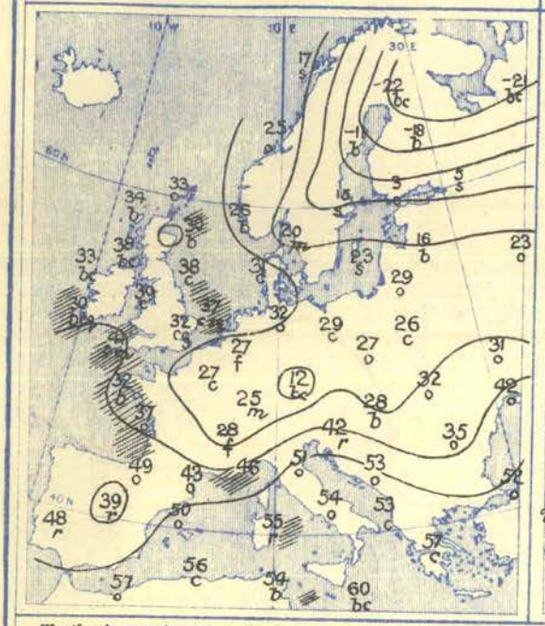
*Temperature* in morning highest, 59° at Malta, 55° at Algiers, and above 50° over the southern and eastern parts of the Mediterranean generally; 43° at Scilly, 40° at Valencia (Ireland). Lowest, (1) −14° Fahr. at Archangel, −11° at Archangel, −6° at Kuopio; (2) +14° at Warsaw, 25° at Munich, 29° at Lyons, 31° at Paris; (3) 31° at Parsonstown, 34° at Loughborough. Rising later to above 40° over our Islands, and touching 42° at Donaghadee and Valencia, 43° at Belmullet, 56° at Oporto, and to between 70° and 77° on the north coast of Africa.

*Wind* (1) Northerly to North-Easterly over Scandinavia and North-Westerly to North-Easterly (anticyclonic) over our Islands; (2) South-Westerly over the Baltic and north Germany. Very variable and light over central and southern parts of Europe. No decided change later.

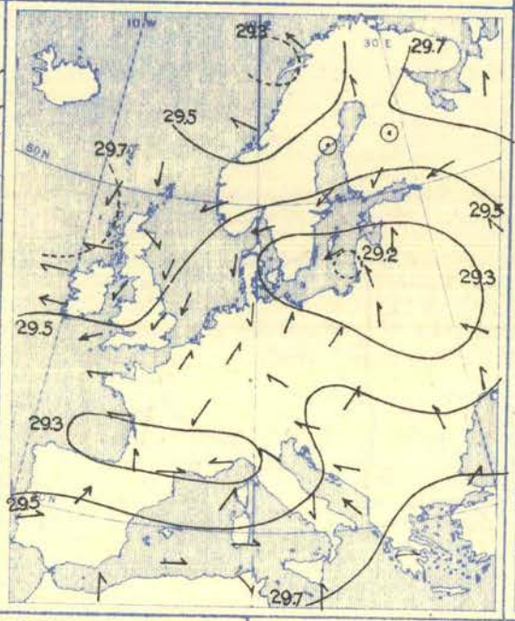
*Barometer* highest, (1) 29·6 ins. and more to 29·5 ins. over the north and western parts of our Islands, and above 29·9 ins. to 29·7 ins. over the south of Russia and the Black Sea; 29·8 ins. to 29·6 ins. over Lapland. Lowest, 29·3 ins. and less in a depression over Denmark and the western part of the Baltic. Rising later over northern Europe, falling over the British Isles and France

## Thursday, 2nd February.

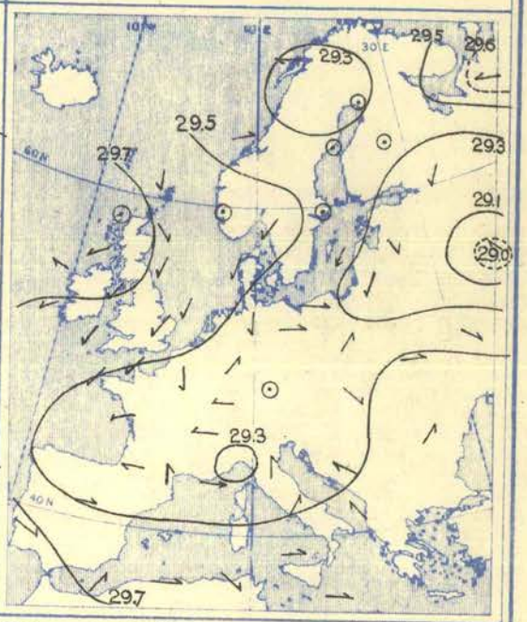
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair and quiet over our Islands as a whole, but cloudy in many places; dull and unsettled over the south of France, and also over central Russia; snow at Bodö and Moscow. Very slight snow showers in the east of England and some parts of Germany later, but fine and bright in the west and north of the British Islands. Rain in the south of France.

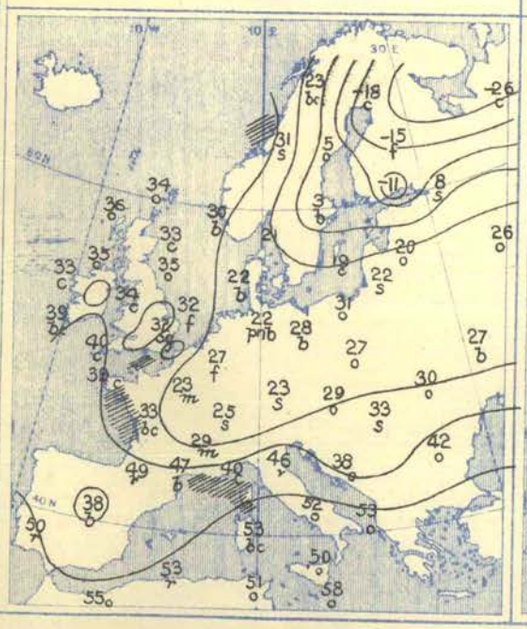
*Temperature* falling over western Europe, and low for the time of year. Morning readings highest, (1) 60° at Malta, 56° at Algiers, 57° at Nemours, 49° at Biarritz, 44° at Nice, 41° at Scilly. Lowest, (1) −20° to −26° over the White Sea and north of Finland, +10° at Karlstad, 17° at Bodö; (2) 16° at Riga, 23° at Moscow, 12° at Munich, 27° at Paris; (3) 30° at Nairn, and also at Oxford and Parsonstown. Rising to 40° and more over Ireland and England later, to 45° at Scilly, 40° at Paris, and 55° at Biarritz. Night cold generally in our Islands, and over the eastern and northern parts of Europe. Maxima as high as 73° at La Calle and Sfax.

*Wind* light to strong, but anticyclonic, over the British Islands (North to East), and also anticyclonic over northern and south-eastern Europe. Cyclonic circulations, however, prevalent over the north-west of Norway, the Baltic, and south-west of France.

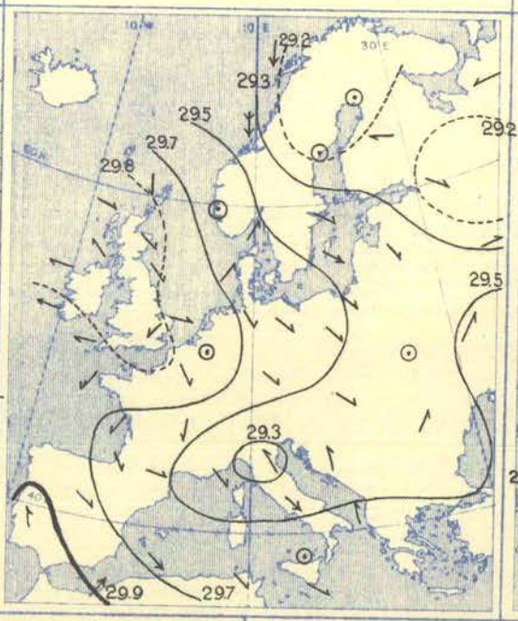
*Barometer* highest, (1) 29·7 ins. and more to 29·6 ins. over the northern parts of Russia and Finland; (2) 29·8 ins. to 29·6 ins. over the south-east of Europe; (3) 29·7 ins. to 29·5 ins. over all the northern and western parts of our Islands. Lowest, 29·3 ins. and less in three depressions—one off the north-west of Norway, another over western Russia and the Baltic, and a third over the south-west and south of France. Rising in our Islands and their neighbourhood all day.

## Friday, 3rd February.

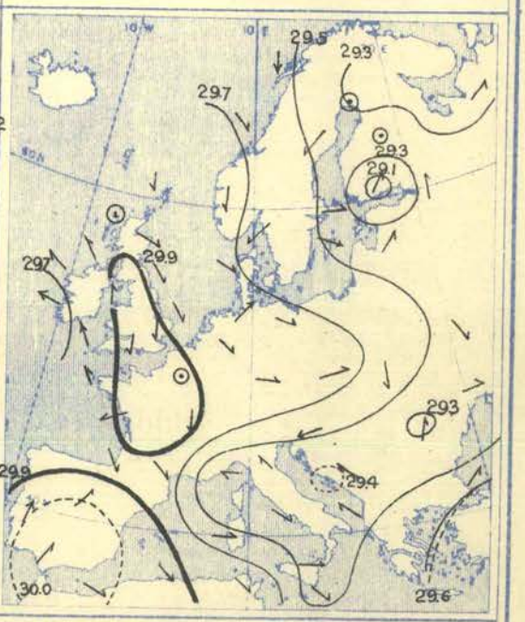
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the British Islands, France, and their neighbourhood, but becoming unsettled on our south-west coasts; less settled on the Continent, with slight snow at some German, Russian, and Scandinavian stations. Rain in the south of France and north of Italy. Becoming much less settled in the south-west of our Islands later, and considerable rain falling in the south of Ireland.

*Temperature* still decreasing over Great Britain and France. Morning readings highest, 58° at Malta, 55° at Oran, 49° at Biarritz, 42° at Roches Point, and 40° at Scilly. Lowest, (1) −26° Fahr. at Archangel, −18° at Haparanda, +3° at Stockholm, 26° at Moscow; (2) 23° at Vienna and Paris, 29° at Lyons; (3) 23° at Parsonstown, 26° at Loughborough, 32° in London. Rising later to 40° or more over the greater part of England and Ireland and touching 46° at Valencia, 47° at Scilly.

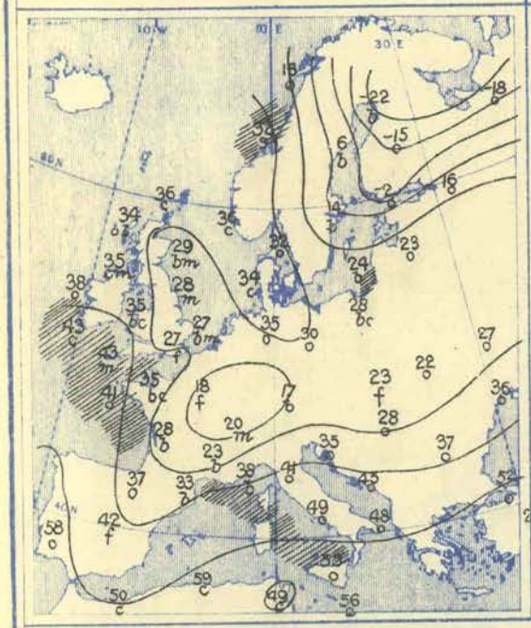
*Wind* light and anticyclonic over our Islands and their neighbourhood—North-Westerly in the east, and Easterly to South-Easterly in the west. Northerly to Westerly over the greater part of the Continent, and blowing hard in Norway; but North-Easterly in the west of France. Increasing from South-East on our south-west coasts later, with rain. Gale in Norway dying down.

*Barometer* in morning highest, 29·9 ins. and more over Portugal; 29·8 ins. and more over the greater part of the British Islands; and 29·6 ins. and more over the south of Russia. Lowest, 29·2 ins. and less in depressions over Lapland, the north of Sweden, and north of Russia; and 29·3 ins. and less in a small disturbance over the north of the Mediterranean. New depression evidently approaching our south-west coasts later, and barometer falling in the south-west of Ireland; low over Italy in the evening.

## Saturday, 4th February.

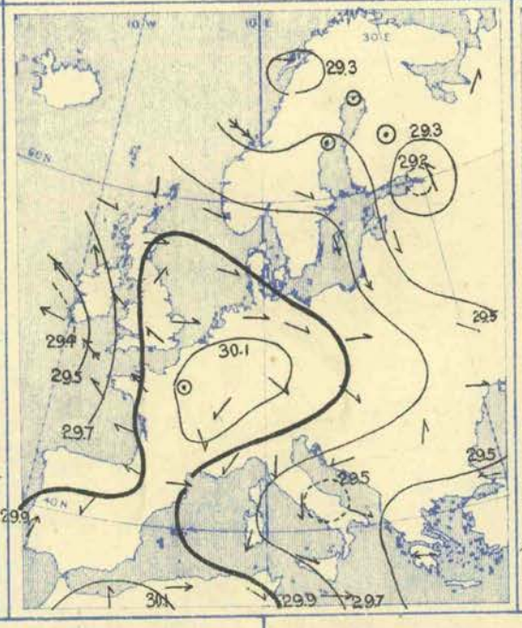
### Temperature and Weather.

8 a.m.

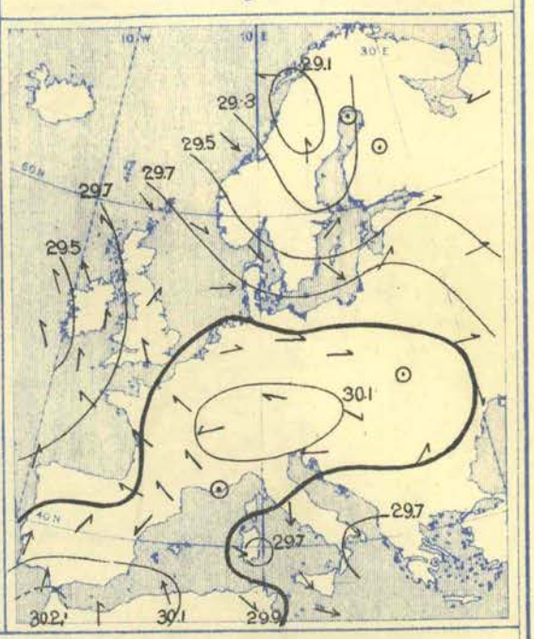


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning clear over the east and north of France, fair over the eastern half of Great Britain, cloudy, and very unsettled over the western and south-western parts of our Islands, with rain in places; fine over Sweden; unsettled over Norway. A depression off our western coasts subsequently moving north-north-westwards, again becoming unsettled at Valencia in evening, and a considerable quantity of rain falling in the south and south-west of England as well as in the north of France.

*Temperature* in morning highest, 59° at Algiers, 58° at Lisbon, 43° on our south west coasts, 40° at Parsonstown. Lowest, (1) - 22° Fahr. at Uleaborg, - 18° at Archangel, + 11° at Moscow; (2) 18° at Paris, 20° at Belfort; (3) 23° at Loughborough, 27° in London. Rising later to above 40° over the greater part of our Islands, to between 50° and 54° on our extreme south-west coasts; exceeding 55° in many parts of southern Europe, and reaching 64° at Bilbao, Corunna, and San Fernando.

*Wind*, (1) light and anticyclonic over France and Germany; (2) North-Westerly to Westerly, and variable over northern Europe; (3) South-Easterly in our Islands, and blowing a gale at Scilly and Roches Point, becoming strong and squally from the southward over England later, but falling light in Ireland.

*Barometer* highest 30·1 ins. and more to 30·9 ins. over France and the west of Germany; lowest (1) about 29·3 ins. in a depression approaching the south-west of Ireland; (2) 29·3 ins. and less in another over the extreme north-west of Norway and west of Lapland; (3) below 29·6 ins. in another over the east of Italy. The disturbance in Ireland moving north-westward later; but barometer at Valencia, after rising suddenly, beginning to fall again.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇛ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During this week anticyclonic conditions have continued prevalent over the United Kingdom almost constantly, the centre of the system lying off our north-western coasts, but pressure decreasing all the while, until on Wednesday night it was below 29·6 ins. at almost all our own and the French stations. In the meantime cyclonic disturbances appeared from time to time over Lapland, Sweden and Russia on the one hand, and over Portugal and the south of France on the other. The winds in our Islands were North-Westerly to North-Easterly, and temperature became low.

On Friday depressions began to encroach on the western and south-western parts of our Islands, the anticyclone took up a more easterly position, temperature rose decidedly at our south-western stations, and Southerly winds and rain were reported very generally.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 26.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 9·0 | ? | 16 | ? | WESTBOURNE (Emsworth) | 17·0* | + 2·5 | 27* | + 3 |
| STRATHPEFFER SPA | 7·6 | - 1·7 | 13 | - 5 | WATERGATE (Emsworth) | 18·4 | + 4·9 | 29 | + 7 |
| EDINBURGH | 7·1 | - 2·9 | 12 | - 5 | BRIGHTON | 21·4* | ? | 34* | ? |
| MORPETH | 12·3 | ? | 21 | ? | BOGNOR | 15·1 | + 1·0 | 24 | + 2 |
| NEWCASTLE-ON-TYNE | 6·8 | ? | 11 | ? | EASTBOURNE | 18·9 | ? | 30 | ? |
| OSWALDKIRK (Yorkshire) | 15·6 | ? | 25 | ? | VENTNOR HOSPITAL | 17·7 | ? | 29 | ? |
| HOLLESLEY BAY | 6·1 | ? | 10 | ? | SOUTHPORT | 13·0 | ? | 21 | ? |
| SHEFFIELD | 8·3 | - 2·5 | 13 | - 5 | COLWYN BAY | 16·3 | + 0·7 | 26 | 0 |
| WORKSOP | 8·0 | - 3·0 | 13 | - 5 | TENBY | 21·3 | + 6·3 | 33 | +11 |
| THURCASTON (Leicestershire) | 6·0 | ? | 10 | ? | NEWQUAY | 14·2* | - 0·5 | 22* | - 2 |
| PLUMSTEAD COMMON | 17·3 | + 4·5 | 27 | + 7 | TORQUAY | 15·3* | - 0·4 | 23* | - 1 |
| MARGATE | | | | | GUERNSEY | | | | |

* The values at Westbourne, Bognor, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 6.] *Third Series.* WEEK ENDING SATURDAY, FEBRUARY 11TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 6d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 32.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 51 | 18 | 43·0 | 33·5 | 38·3 | 0 (average) | 3 | − 4 | 31 | −11 | 8 | − 30 | 239 | − 16 |
| | 1. SCOTLAND, EAST | 54 | 11 | 43·4 | 33·1 | 38·3 | 1 above | 4 | − 5 | 32 | −11 | 8 | − 37 | 272 | + 6 |
| | 2. ENGLAND, N.E. | 61 | 24 | 48·0 | 36·3 | 42·2 | 4 above | 25 | +17 | 16 | −22 | 69 | + 30 | 165* | − 77 |
| | 3. ENGLAND, EAST | 65 | 22 | 50·4 | 39·3 | 44·9 | 6 above | 25 | +15 | 8 | −34 | 104 | + 60 | 134 | −144 |
| | 4. MIDLAND COUNTIES | 62 | 22 | 49·7 | 38·5 | 44·1 | 6 above | 29 | +18 | 10 | −33 | 101 | + 47 | 167 | −110 |
| | 5. ENGLAND SOUTH | 66 | 27 | 51·7 | 42·3 | 47·1 | 7 above | 36 | +24 | 0 | −34 | 135 | + 74 | 88 | −137 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 52 | 27 | 45·6 | 38·2 | 41·9 | 2 above | 10 | 0 | 16 | −14 | 50 | − 7 | 177 | − 14 |
| | 7. ENGLAND, N.W. | 65 | 28 | 49·3 | 39·5 | 44·4 | 4 above | 27 | +18 | 7 | −24 | 94 | + 47 | 126 | − 76 |
| | 8. ENGLAND, S.W. | 60 | 32 | 52·1 | 43·4 | 47·8 | 6 above | 41 | +25 | 0 | −25 | 143 | + 58 | 82 | − 81 |
| | 9. IRELAND, NORTH | 53 | 33 | 48·3 | 39·8 | 44·0 | 3 above | 23 | + 9 | 6 | −20 | 70 | − 5 | 158 | − 9 |
| | 10. IRELAND, SOUTH | 56 | 33 | 51·5 | 42·6 | 47·1 | 4 above | 36 | +15 | 0 | −20 | 140 | + 27 | 100 | − 32 |
| | —CHANNEL ISLANDS— | 61 | 34 | 55·8 | 46·8 | 51·3 | 7 above | 65 | +44 | 0 | −12 | 253 | +128 | 29 | − 46 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 32.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 6 | 11 | 1 less | 29 | − 3 | 6·6 | − 0·8 | 6 | − 5 | 9 | −10 | 50 | + 9 | 15 | + 3 |
| | 1. SCOTLAND, EAST | 6 | 13 | 7 more | 29 | + 5 | 5·0 | + 1·1 | 6 | − 7 | 10 | −12 | 58 | + 1 | 18 | 0 |
| | 2. ENGLAND, N.E. | 6 | 6 | 2 more | 29 | + 7 | 3·2 | + 0·5 | 9 | − 5 | 15 | − 7 | 56* | − 6 | 16 | − 1 |
| | 3. ENGLAND, EAST | 6 | 7 | 2 more | 29 | + 6 | 3·0 | + 0·3 | 11 | − 5 | 17 | − 7 | 103 | + 25 | 28 | + 7 |
| | 4. MIDLAND COUNTIES | 7 | 14 | 8 more | 30 | + 7 | 5·1 | + 1·8 | 6 | − 7 | 10 | −11 | 68 | + 7 | 21 | + 2 |
| | 5. ENGLAND, SOUTH | 6 | 13 | 7 more | 28 | + 6 | 4·6 | + 0·9 | 7 | − 9 | 11 | −13 | 89 | + 17 | 25 | + 5 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 7 | 18 | 6 more | 30 | + 2 | 8·0 | + 0·5 | 3 | − 9 | 4 | −15 | 51 | − 4 | 15 | − 2 |
| | 7. ENGLAND, N.W. | 7 | 13 | 6 more | 30 | + 5 | 6·3 | + 2·2 | 8 | − 7 | 12 | −11 | 65 | + 5 | 19 | + 2 |
| | 8. ENGLAND, S.W. | 7 | 23 | 15 more | 30 | + 4 | 9·5 | + 4·2 | 14 | − 3 | 21 | − 4 | 81 | + 2 | 22 | 0 |
| | 9. IRELAND, NORTH | 7 | 15 | 7 more | 33 | + 4 | 5·6 | + 0·8 | 5 | − 8 | 8 | −13 | 70 | + 5 | 21 | + 2 |
| | 10. IRELAND, SOUTH | 7 | 28 | 20 more | 32 | + 5 | 9·1 | + 3·7 | 9 | − 6 | 14 | −10 | 74 | − 6 | 22 | − 1 |
| | — CHANNEL ISLANDS— | 6 | 13 | 6 more | 30 | + 2 | 6·5 | + 1·9 | 20 | − 1 | 29 | − 3 | 85 | − 5 | 23 | − 1 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was cold at the commencement of the period with snow or sleet at many of our northern stations and cold rain in the south. After Monday, however, it was very mild, wet and stormy generally, although a few intervals of bright sunshine were experienced. In the south and south-east on Friday the maximum temperature was exceptionally high for the time of year.

*Temperature* was much above the mean over England and Ireland, the excess in England S. and the Channel Islands being as much as 7°. In the west and east of Scotland, however, the excess was slight, while in Scotland N. the weekly value was just equal to the normal. The highest of the maxima were recorded on Friday, when the thermometer rose to 66° in England S. (in London, where it was the highest reading registered in February for more than 50 years), to 65° in England E. and England N.W., and to between 61° and 63° in most other parts of England. In Ireland and Scotland the maxima ranged from 51° in Scotland N. to 56° in Ireland S. The lowest of the minima, which occurred on the 5th, ranged from 11° in Scotland E., 18° in Scotland N., and from 22° in central and eastern England to 35° in Ireland, and to 34° in the Channel Islands.

*Rainfall* was rather less than the mean in Scotland N., but in excess in all other districts. Over all the southern parts of England, the east of Scotland and the north of Ireland the fall was about twice as much as the mean, while that in Ireland S. was more than three times as much. The total fall for the week at Killarney amounted to 5·38 ins.

*Bright Sunshine* was less than the mean in all districts. The percentage of the possible duration ranged from 29° in the Channel Islands, and 21° in England S.W. to 9° in Scotland N., 8° in Ireland N., and 4° in Scotland W.

*Barometer and Wind.*—At the commencement of the week small depressions were shown over the south-west and south of our Islands, while a slight anticyclone existed over Scotland. The latter system subsequently moved south-eastwards to Germany and further depressions appeared off our western coasts. These systems moved northwards or north-eastwards, and mostly skirted our coasts, but towards the end of the week they extended more over us. The winds were moderate from North and North-East at the beginning of the period, but afterwards shifted to South-East and South, and finally South-West. Under these directions it increased greatly, and frequently blew with the force of a strong gale over Ireland and England; in Scotland, however, after blowing a slight gale on Tuesday it remained moderate.

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# II.—DATA from which the SUMMARY on page 31 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 45 | 25 | 41·1 | 32·7 | 36·9 | − 1·6 | 0 | 36 | 6 | 0·77 | − 0·03 | * | * | * | * |
| | Stornoway | 49 | 31 | 43·6 | 34·6 | 39·1 | + 0·1 | 4 | 27 | 7 | 1·22 | + 0·22 | 5·7 | − 6·4 | 9 | −11 |
| | Wick | 49 | 30 | 44·1 | 35·3 | 39·7 | + 1·7 | 6 | 25 | 7 | 0·69 | + 0·17 | * | * | * | * |
| | Lairg Ⓢ | 51 | 18 | 41·2 | 29·0 | 25·1 | − 1·6 | 0 | 48 | 7 | 0·54 | − 0·25 | * | * | * | * |
| | Glencarron Ⓢ | 49 | 25 | 42·4 | 32·5 | 37·5 | + 0·5 | 1 | 34 | 6 | 1·25 | − 0·70 | * | * | * | * |
| | Fort Augustus Ⓢ | 51 | 21 | 43·7 | 33·1 | 38·4 | 0·0 | 5 | 32 | 5 | 0·86 | − 0·11 | 3·6 | − 3·5 | 6 | − 6 |
| | Fort William Ⓢ | 50 | 29 | 44·9 | 37·4 | 41·2 | + 2·4 | 8 | 18 | 6 | 2·18 | + 0·18 | 5·1 | − 5·3 | 8 | −10 |
| 1. SCOTLAND E. | Nairn | 50 | 12 | 43·9 | 29·1 | 36·5 | − 1·2 | 5 | 46 | 4 | 0·55 | + 0·15 | * | * | * | * |
| | Aberdeen | 49 | 22 | 44·4 | 34·7 | 39·6 | + 1·6 | 7 | 28 | 7 | 1·45 | + 0·85 | 8·2 | − 7·8 | 13 | −13 |
| | Braemar Ⓢ | 45 | 11 | 39·1 | 29·2 | 34·2 | − 0·5 | 0 | 55 | 7 | 1·19 | + 0·47 | 3·7† | − 8·8† | 6† | −15† |
| | Ochtertyre Ⓢ | 49 | 29 | 42·7 | 35·1 | 38·9 | + 2·1 | 2 | 25 | 6 | 3·08 | + 2·08 | * | * | * | * |
| | Leith | 54 | 29 | 47·1 | 36·4 | 41·8 | + 2·4 | 14 | 24 | 7 | 0·57 | + 0·15 | * | * | * | * |
| | Marchmont Ⓢ | 51 | 26 | 43·3 | 34·3 | 38·8 | + 1·8 | 4 | 28 | 5 | 1·04 | + 0·39 | 4·8 | − 9·0 | 8 | −15 |
| 2. ENGLAND, N.E. | Alnwick Castle | 55 | 24 | 46·9 | 35·8 | 41·4 | + 3·1 | 14 | 25 | 7 | 0·84 | + 0·29 | * | * | * | * |
| | Durham | 57 | 27 | 46·3 | 33·1 | 39·7 | + 1·7 | 12 | 34 | 7 | 0·63 | + 0·19 | 10·2 | − 3·6 | 16 | − 7 |
| | Shields | 60 | 26 | 48·7 | 36·7 | 42·7 | + 3·6 | 27 | 15 | 6 | 0·35 | − 0·05 | * | * | * | * |
| | Scarborough Ⓜ | 57 | 31 | 48·5 | 36·4 | 42·5 | + 3·5 | 27 | 16 | 4 | 0·61 | + 0·13 | 9·0 | ? | 14 | ? |
| | York | 59 | 28 | 48·7 | 36·9 | 42·8 | + 4·0 | 27 | 14 | 5 | 0·88 | + 0·43 | 5·7 | − 5·6 | 9 | − 9 |
| | Spurn Head | 61 | 32 | 49·0 | 38·7 | 43·9 | + 4·9 | 27 | 9 | 4 | 0·41 | + 0·05 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 64 | 32 | 51·3 | 40·4 | 45·9 | + 7·4 | 34 | 4 | 5 | 0·59 | + 0·11 | 8·4 | − 6·3 | 13 | −11 |
| | Yarmouth | 55 | 25 | 48·7 | 38·3 | 43·5 | + 5·3 | 26 | 10 | 5 | 0·44 | − 0·03 | * | * | * | * |
| | Geldeston | 61 | 32 | 50·4 | 41·3 | 45·9 | + 6·9 | 30 | 2 | 5 | 0·47 | + 0·07 | 12·2 | − 3·3 | 19 | − 5 |
| | Cambridge | 65 | 22 | 52·4 | 37·9 | 45·2 | + 6·4 | 40 | 11 | 6 | 0·74 | + 0·36 | 10·7 | − 4·3 | 16 | − 7 |
| | Felixstowe | 55 | 27 | 47·6 | 38·7 | 43·2 | + 4·7 | 22 | 9 | 5 | 0·52 | ? | 17·6 | ? | 27 | ? |
| | Rothamsted | 63 | 24 | 52·1 | 39·1 | 45·6 | + 7·6 | 37 | 8 | 7 | 1·39 | + 0·86 | 9·9 | − 4·1 | 15 | − 7 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 59 | 30 | 49·0 | 38·3 | 43·7 | + 5·0 | 27 | 10 | 5 | 0·70 | + 0·28 | * | * | * | * |
| | Loughborough | 62 | 22 | 50·7 | 37·3 | 44·0 | + 5·0 | 34 | 13 | 6 | 0·86 | + 0·38 | * | * | * | * |
| | Stamford (Duddington) | 62 | 22 | 50·1 | 37·4 | 43·8 | + 5·4 | 32 | 13 | 7 | 0·94 | + 0·49 | * | * | * | * |
| | Cheadle Ⓜ | 55 | 30 | 46·6 | 37·3 | 42·0 | + 4·5 | 13 | 13 | 6 | 1·39 | + 0·75 | * | * | * | * |
| | Shirley (near Solihull) | 58 | 27 | 49·1 | 37·8 | 43·5 | + 5·3 | 28 | 12 | 7 | 1·45 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 54 | 32 | 47·6 | 39·4 | 43·5 | + 5·0 | 21 | 7 | 7 | 2·69 | + 2·04 | 9·1 | − 4·9 | 14 | − 7 |
| | Hereford Ⓜ | ? 60 | 26 | ? 50·3 | 39·3 | ? 44·8 | ? + 5·3 | 31 | 8 | 7 | 1·83 | + 1·28 | * | * | * | * |
| | Cirencester | 59 | 31 | 51·3 | 39·9 | 45·6 | + 7·4 | 34 | 6 | 7 | 1·64 | + 0·97 | 7·3 | − 7·9 | 11 | −12 |
| | Oxford | 62 | 24 | 52·7 | 39·9 | 46·3 | + 6·8 | 39 | 6 | 7 | 0·85 | + 0·35 | 8·4 | − 5·6 | 13 | − 9 |
| 5. ENGLAND, S. | London | 66 | 27 | 53·4 | 41·6 | 47·5 | + 7·5 | 40 | 1 | 6 | 1·02 | + 0·57 | 7·5† | − 0·3† | 12† | 0† |
| | Cranley Ⓜ | 62 | 31 | ? 52·0 | ? 41·2 | ? 46·6 | ? + 7·4 | ? 36 | ? 2 | ? 6 | 1·54 | ? | * | * | * | * |
| | Dungeness | 54 | 37 | 50·7 | 43·0 | 46·9 | + 7·1 | 34 | 0 | 7 | 0·76 | + 0·21 | * | * | * | * |
| | Hastings (St. Leonards) | 55 | 37 | 49·8 | 43·5 | 46·7 | + 6·7 | 33 | 0 | 6 | 1·01 | + 0·43 | 4·3 | −13·4 | 7 | −12 |
| | Southampton | 61 | 36 | 52·1 | 43·6 | 47·9 | + 7·1 | 41 | 0 | 6 | 1·71 | + 1·03 | 6·4 | − 9·9 | 10 | −15 |
| | Hurst Castle | 59 | 36 | 53·4 | 42·9 | 48·2 | + 7·3 | 43 | 0 | 6 | 1·20 | + 0·60 | * | * | * | * |
| | Shaftesbury Ⓜ | 57 | 30 | 50·7 | 40·4 | 45·6 | + 7·4 | 32 | 4 | 6 | 1·49 | + 0·82 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 50 | 31 | 44·8 | 38·4 | 41·6 | + 1·6 | 8 | 15 | 7 | 2·41 | + 0·59 | * | * | * | * |
| | Glasgow | 50 | 30 | 45·0 | 37·1 | 41·1 | + 2·1 | 8 | 20 | 7 | 1·34 | + 0·44 | 2·8 | − 6·1 | 5 | − 9 |
| | Ardrossan | 49 | 27 | 44·7 | 36·0 | 40·4 | + 0·2 | 8 | 23 | 6 | 0·72 | − 0·16 | * | * | * | * |
| | Glenlee Ⓢ | 52 | 32 | 45·4 | 37·6 | 41·5 | + 3·7 | 10 | 18 | 7 | 2·43 | + 1·05 | * | * | * | * |
| | Douglas (Isle of Man) | 52 | 37 | 48·1 | 42·1 | 45·1 | + 4·3 | 22 | 0 | 7 | 1·94 | + 1·02 | 2·1 | −12·9 | 3 | −21 |
| 7. ENGLAND, N.W. | Stonyhurst | 56 | 32 | 47·4 | 38·9 | 43·2 | + 4·5 | 21 | 9 | 7 | 1·52 | + 0·60 | 5·7 | − 6·5 | 9 | −10 |
| | Blackpool Ⓜ | 57 | 28 | 48·9 | 37·7 | 43·3 | + 4·1 | 27 | 12 | 6 | 1·46 | + 0·82 | 2·8 | − 9·4 | 4 | −16 |
| | Manchester (Prestwich) | 56 | 32 | 48·4 | 39·9 | 44·2 | + 5·4 | 24 | 6 | 6 | 0·94 | + 0·31 | 4·9 | ? | 8 | ? |
| | Liverpool Obsy. (Bidston) | 58 | 28 | 49·3 | 38·0 | 43·7 | + 3·7 | 29 | 11 | 7 | 0·71 | + 0·23 | * | * | * | * |
| | Llandudno Ⓜ | 65 | 34 | 52·5 | 41·0 | 46·8 | + 5·0 | 38 | 3 | 7 | 1·58 | + 1·00 | 10·2 | − 3·8 | 16 | − 7 |
| | Holyhead | 52 | 32 | 49·1 | 41·3 | 45·2 | + 3·0 | 25 | 2 | 7 | 1·35 | + 0·68 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 57 | ? | 52·9 | ? | ? | ? | ? | ? | 7 | 2·85 | + 1·77 | * | * | * | * |
| | Pembroke | 53 | 35 | 49·9 | 43·0 | 46·5 | + 4·3 | 32 | 0 | 7 | 2·60 | + 1·82 | 15·5 | − 2·0 | 24 | − 2 |
| | Clifton | 60 | 33 | 52·9 | 42·1 | 47·5 | + 7·1 | 39 | 0 | 6 | 1·62 | + 0·90 | * | * | * | * |
| | Arlington (N. Devon) | 58 | 35 | 51·7 | 39·4 | 45·6 | + 4·8 | 36 | 7 | 6 | 2·03 | + 1·11 | * | * | * | * |
| | Cullompton Ⓜ | 58 | 34 | 53·1 | 43·1 | 48·1 | + 7·4 | 43 | 0 | 7 | 2·01 | + 1·33 | 4·8 | − 9·7 | 7 | −15 |
| | Falmouth | 58 | 44 | 53·2 | 47·3 | 50·3 | + 6·5 | 58 | 0 | 6 | 3·43 | + 2·45 | 18·3 | + 1·1 | 27 | + 1 |
| | Plymouth | 56 | 40 | 52·1 | 45·2 | 48·7 | + 6·1 | 47 | 0 | 7 | 2·14 | + 1·34 | 16·1 | − 0·1 | 24 | − 1 |
| | Prawle Point | 56 | 32 | 52·0 | 43·6 | 47·8 | + 5·4 | 41 | 0 | 6 | 1·54 | + 0·99 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 50 | 34 | 46·3 | 39·1 | 42·7 | + 0·7 | 17 | 8 | 6 | 0·81 | ? | * | * | * | * |
| | Londonderry | 53 | 35 | 48·7 | 39·0 | 43·9 | + 2·9 | 26 | 8 | 7 | 1·19 | + 0·39 | * | * | * | * |
| | Edenfel (Omagh) | 51 | 33 | 47·9 | 38·3 | 43·1 | + 4·1 | 23 | 10 | 7 | 1·77 | + 1·07 | * | * | * | * |
| | Belmullet | 50 | 38 | 48·3 | 41·0 | 44·7 | + 1·6 | 23 | 3 | 7 | 1·39 | + 0·27 | * | * | * | * |
| | Markree Castle | 51 | 38 | 49·4 | 39·7 | 44·6 | + 4·4 | 28 | 6 | 7 | 2·10 | + 1·43 | 4·9 | − 8·2 | 8 | −13 |
| | Armagh | 53 | 37 | 48·9 | 40·5 | 44·7 | + 4·7 | 25 | 4 | 7 | 1·52 | + 1·00 | 4·9 | − 8·2 | 8 | −13 |
| | Donaghadee | 52 | 37 | 48·3 | 40·7 | 44·5 | + 3·5 | 23 | 4 | 7 | 1·51 | + 0·84 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 56 | 40 | 51·9 | 43·4 | 47·7 | + 5·4 | 40 | 0 | 7 | 1·32 | + 0·79 | 11·1 | − 4·9 | 17 | − 8 |
| | Parsonstown | 55 | 34 | 51·9 | 41·0 | 46·5 | + 5·5 | 36 | 3 | 7 | 1·11 | + 0·50 | 8·4 | − 6·1 | 13 | −10 |
| | Kilkenny | 53 | 33 | 51·1 | 42·4 | 46·8 | + 5.1 | 34 | 0 | 7 | 1·42 | + 0·70 | * | * | * | * |
| | Roche's Point | 52 | 41 | 50·9 | 44·7 | 47·8 | + 4·0 | 41 | 0 | 7 | 3·40 | + 2·27 | * | * | * | * |
| | Valencia | 55 | 40 | 52·3 | 43·4 | 47·9 | + 2·9 | 41 | 0 | 7 | 4·48 | + 3·19 | 7·9 | − 7·9 | 12 | −13 |
| | Killarney | 55 | 38 | 52·1 | 42·9 | 47·5 | + 4·1 | 39 | 0 | 7 | 5·68 | ? | * | * | * | * |
| | Foynes | 54 | 36 | 50·6 | 40·7 | 45·7 | + 4·1 | 31 | 4 | 7 | 2·46 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 57 | 43 | 55·4 | 47·9 | 51·7 | + 6·2 | 68 | 0 | 7 | 1·40 | + 0·65 | 23·6 | ? | 35 | ? |
| | Jersey | 61 | 34 | 56·1 | 45·6 | 50·9 | + 8·1 | 62 | 0 | 5 | 1·15 | + 0·48 | 16·8 | − 3·0 | 25 | − 6 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

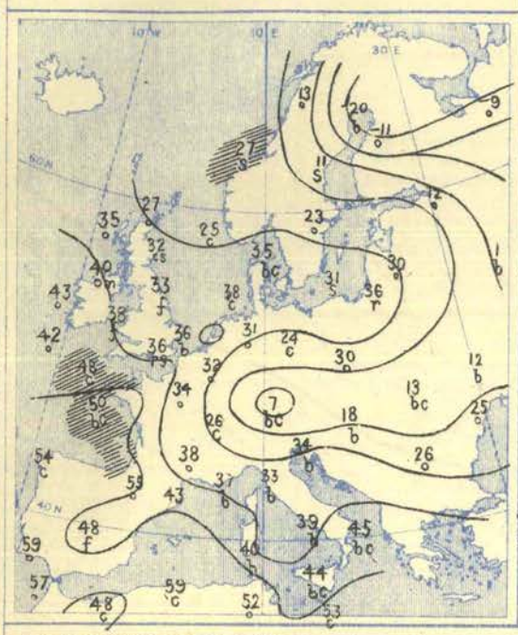
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

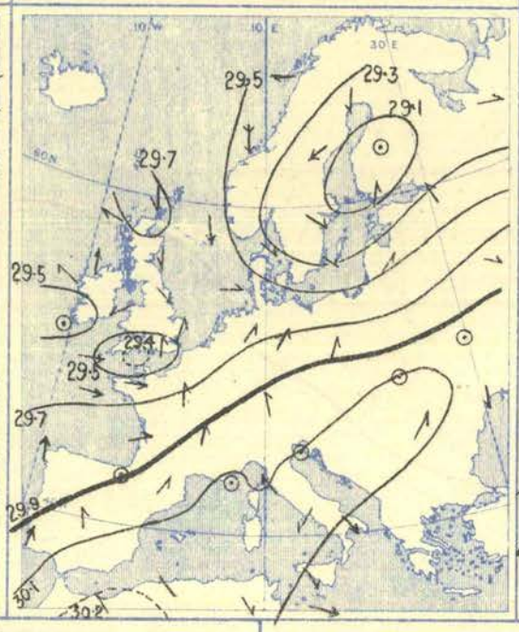
Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 5th February.

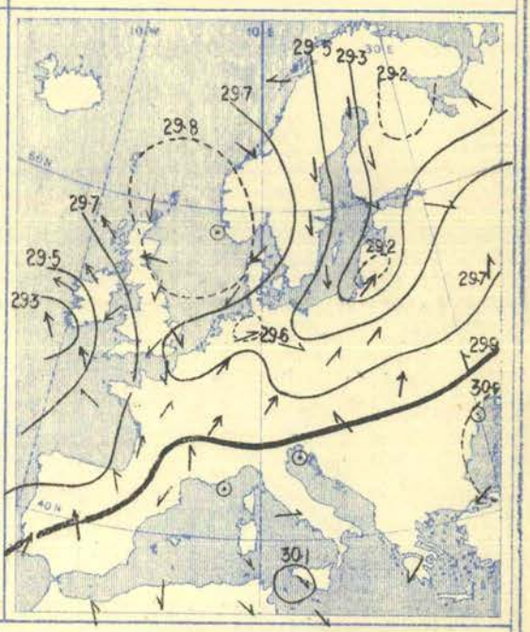
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over western and northern Europe generally, with rain or snow at many of the English stations; snow falling also at Aberdeen and at Hernösand, Christiansund, and Wisby. Fine over Italy, Austria, south Germany, and the central and southern parts of Russia. Rain falling later in most parts of our Islands and France, and snow at some of the German stations.

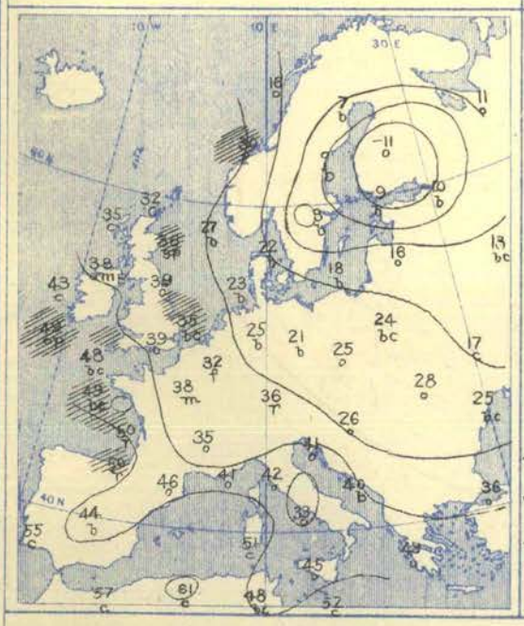
*Temperature* risen rapidly over France and the Gulf of Bothnia, and less decidedly over western and northern Europe generally, but fallen in the west of Norway. Morning readings highest, 59° at Lisbon and Algiers, 58° at Bilbao, and 57° at San Fernando; above 50° at most of the Mediterranean and Spanish coast stations. Lowest, −20° Fahr. at Haparanda, −11° at Uleaborg, and −9° at Archangel; considerably below the freezing point in most parts of northern and central Europe, and slightly below it at some of the Scotch stations. Daily maxima below 40° at most of our own northern stations, but above 45° in the south, and above 50° in the Scilly and Channel Islands. Thermometer exceeding 55° over Spain and southern Italy, and reaching 64° at Bilbao.

*Wind* South-Westerly (Southerly to Westerly) over the western and central parts of the Continent generally, and also over the south of England; Easterly over the northern parts of England and Ireland. Light from the Northward in Scotland, and strong to a gale from the same quarter in the west of Norway. Variable in Italy and the south of France; Northerly or North-Easterly in the south of Russia. Subsequently shifting to the Eastward or South-Eastward in the west and north of our Islands, and blowing strongly in places; veering to the Northward in the south-east of England.

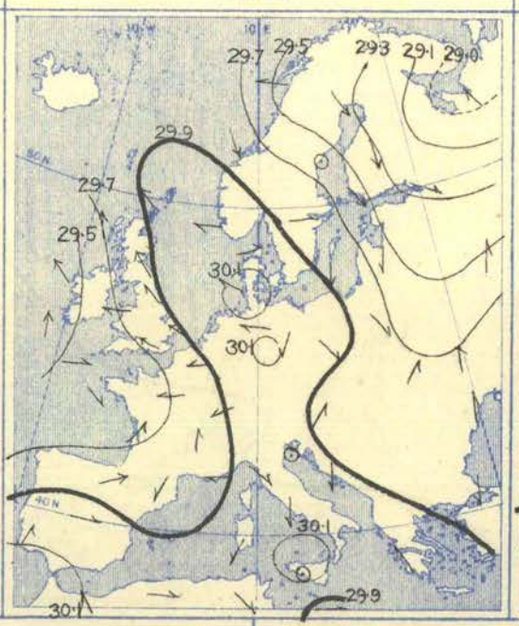
*Barometer* highest, 30·1 ins. and upwards over Austria, northern Italy, the western parts of the Mediterranean and Algeria. Lowest, 29·1 ins. and less in a depression lying over Finland; 29·4 ins. and less in a small disturbance over the south of England; 29·5 ins. and less in another system over the south of Ireland. Depressions over northern Europe and the south of England subsequently moving eastwards and partially filling up; new and rather deep disturbance appearing off the south-west of Ireland in evening.

## Monday, 6th February.

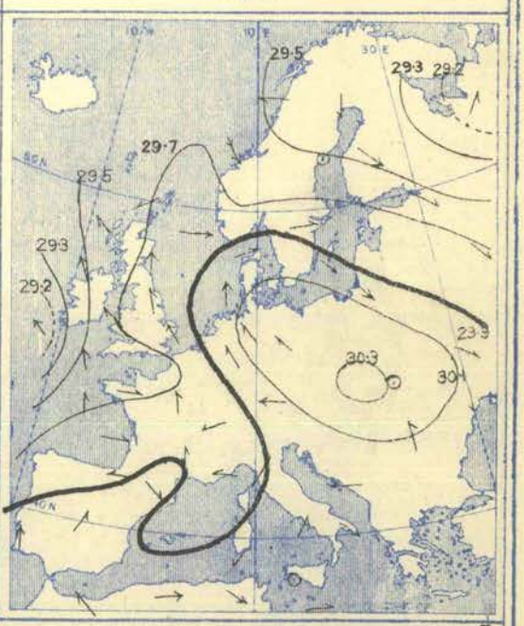
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning dull and unsettled over the greater part of western, central and southern Europe, with rain in many places and snow or sleet over the northern and central parts of Great Britain. Fine at some of our south-western stations, and also over Sweden, Denmark, north Germany, the south of Norway, and the greater part of Russia. Considerable amounts of rain falling later in the south of our Islands and the west and north of France; thunder and lightning occurring at Scilly, and lightning only at Roche's Point.

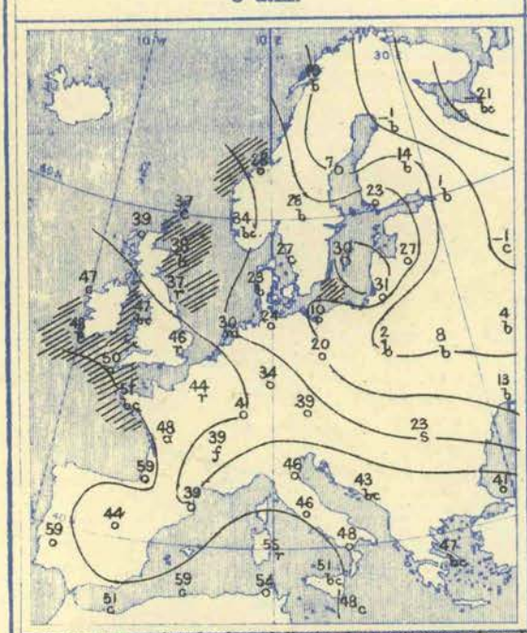
*Temperature* risen in our Islands, fallen in Sweden, Denmark, Germany, and the north of France. Morning readings highest, 61° at Algiers, 59° at San Fernando, and 57° at Nemours and Oran; above 50° at most of the Mediterranean and Spanish coast stations. Lowest, −11° Fahr. to −7° over Finland; below 20° over Sweden and Russia generally. Daily maxima below 40° over the northern parts of our Islands, but above 50° on our south-west coasts, and above 55° in the west and south of France, as well as in Spain and southern Italy.

*Wind* moderate to fresh from the Westward or South-Westward over Spain and the Bay of Biscay; strong from the Eastward or South-Eastward over our Islands, and light to moderate from the same quarters on the eastern shores of the North Sea; Northerly or North-Westerly over Sweden, western Russia and eastern Germany; Southerly or South-Westerly over Austria and the south of Russia; variable in Italy. No important change occurring during day.

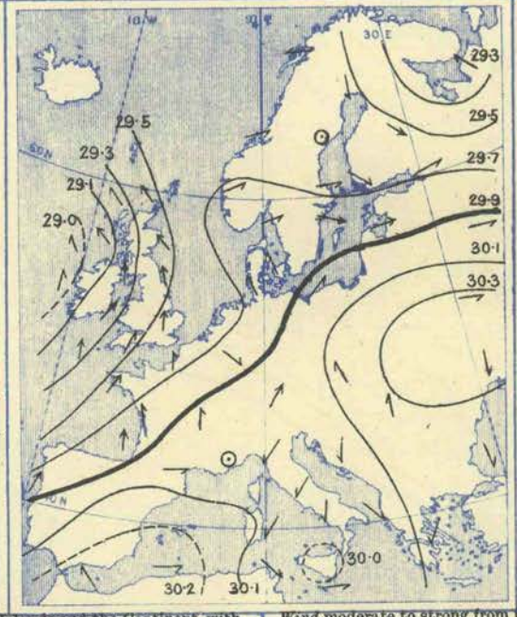
*Barometer* highest, 30·1 ins. and upwards in three anticyclones—one lying over Denmark and north Germany, another off the south of Spain, and a third to the northward of Sicily. Lowest, 29·0 ins. and less in a depression over the White Sea; 29·5 ins. and less in another disturbance off the west of Ireland. Small secondary depression moving eastwards along the Channel during day; new disturbance approaching Ireland in evening. Anticyclone over Denmark drifting slowly south-eastwards.

## Tuesday, 7th February.

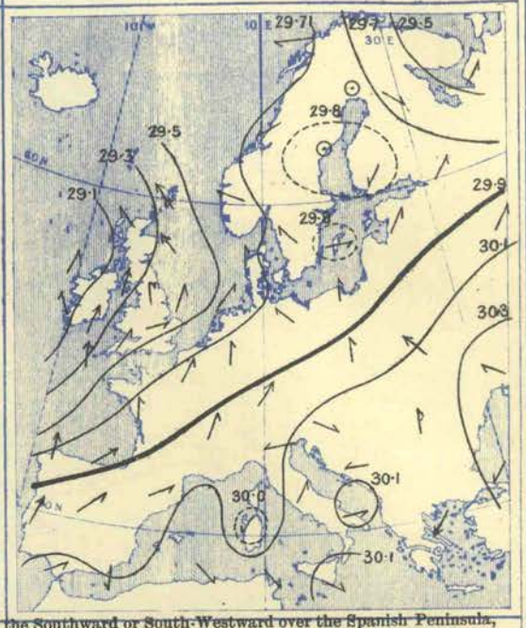
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over the greater part of our Islands and the Continent, with rain or passing showers in many parts of Ireland, England and the north of France, and with snow at Leith. Rain falling also at Cagliari and snow at Helsingfors and Hermanstadt. Sky clearing later in the east and south-east of England, but rain falling over western Europe generally during the ensuing 24 hours. Thunder and lightning occurring over the southern parts of the United Kingdom.

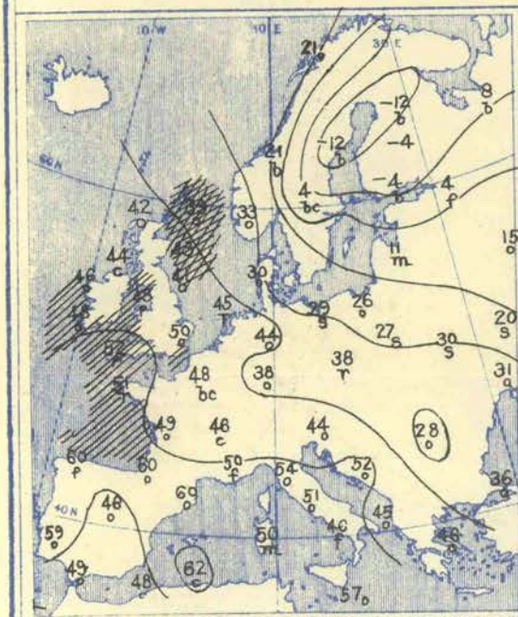
*Temperature* risen in all but the eastern and central countries. Morning readings highest, 64° at Bilbao, and 59° at Biarritz, Lisbon and Algiers; touching 50° at some of the English Channel stations. Lowest, −21° Fahr. at Archangel, −1° at Ulcaborg and Moscow, and +1° at St. Petersburg; below the freezing point over northern, eastern and central Europe generally. Rising during day to between 50° and 56° over the central and southern parts of our Islands; exceeding 55° also at several stations in the west and south of France, and exceeding 60° over Spain and southern Italy, the highest reading of all being 66° at San Fernando, Cagliari and Palermo.

*Wind* moderate to strong from the Southward or South-Westward over the Spanish Peninsula, the west of France, and the southern parts of our Islands, and from the South-Eastward on all our more northern and eastern coasts, with a gale at Donaghadee. Westerly over the southern parts of Scandinavia and northern and central Russia, with a gale at Wisby; North-Westerly in the south of Russia. Light to moderate from the South-Eastward over Germany and Austria; Northerly or North-Westerly in Italy. No important change occurring over western Europe during day, but wind shifting to the Eastward on the Norwegian coasts.

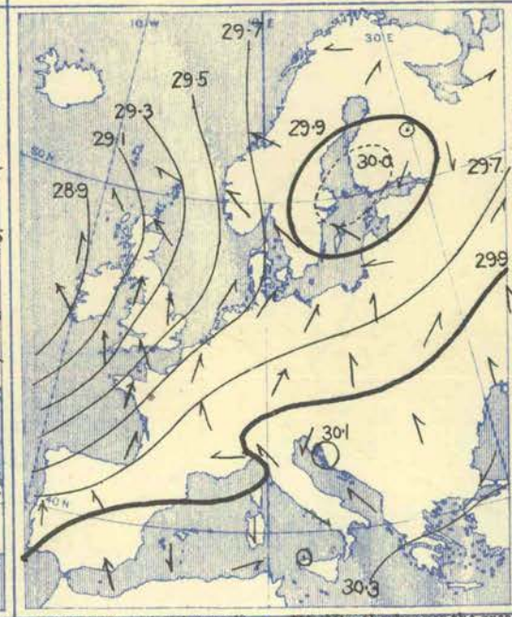
*Barometer* highest, 30·3 ins. and upwards over the extreme south-west of Russia; 30·1 ins. and upwards in an anticyclone covering the whole of south-eastern Europe, and also in another system over Algeria and the southern parts of Spain. Lowest, 29·0 ins. and less in a depression lying off the west of Ireland; 29·3 ins. and less in another disturbance over the extreme north of Russia. New depressions approaching our own extreme south-west coasts later, and barometer falling in most parts of the United Kingdom.

## Wednesday, 8th February.

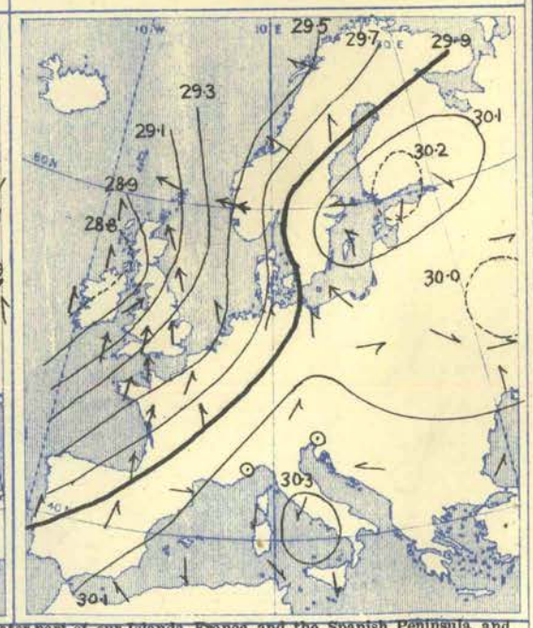
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine in the east of England, and also in Sweden, but cloudy or dull in nearly all other parts of Europe; rain falling in the south-west of our Islands and the north-west of France, as well as at some of the Scotch stations, and at the Helder, Belfort, and Munich. Snow reported at Swinemünde, Warsaw, Lemberg, and Kiev. Rain falling later over north-western Europe generally, and snow in some parts of Scandinavia and northern Russia.

*Temperature* risen over western, central, and southern Europe, but fallen over Finland and Scandinavia. Morning readings highest, 62° at Algiers, and 60° at Biarritz, Corunna, and Barcelona; above 50° in the west of France and the Scilly and Channel Islands. Lowest, −12° at Ulcaborg and Hernösand, −9° at Haparanda, and −8° at Archangel; considerably below the freezing point over Sweden and Russia generally. Rising during day to 50° and upwards in many parts of the United Kingdom, and to 56° at Scilly and Jersey; exceeding 55° also in the west of France, and exceeding 60° over the Spanish Peninsula and southern Italy, the highest reading of all being 68° at Palermo.

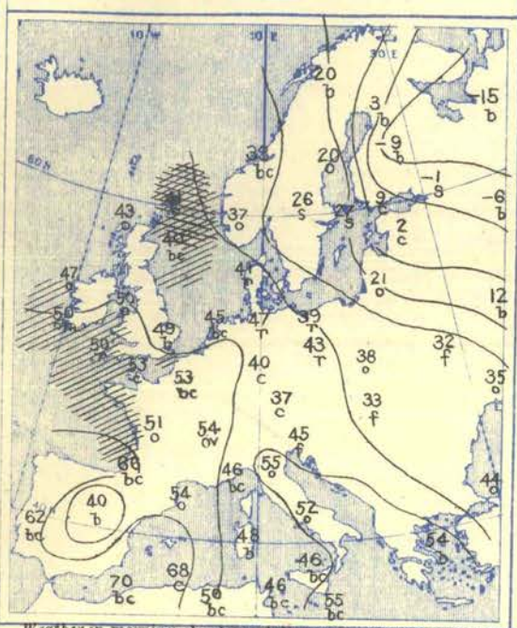
*Wind* Southerly over the greater part of our Islands, France, and the Spanish Peninsula, and strong in force on our western coasts. South-Easterly in the north of Scotland, and also on the eastern shores of the North Sea. Light from the Eastward or North-Eastward over Finland, Sweden, and the Baltic. Light from the Southward in the south of Russia; calm in Austria; variable in Italy. Subsequently veering to the Southward in the north of Scotland; no important change occurring elsewhere.

*Barometer* highest, 30·3 ins. and upwards in the extreme south of Russia; 30·1 ins. and upwards in an anticyclone lying over southern and eastern Europe generally; 30·0 ins. and upwards in another system over central Sweden. Lowest, 28·9 ins. and less in a depression off the west of Ireland. Depression subsequently moving northwards, but new disturbance beginning to approach our western coasts at night.

## Thursday, 9th February.

### Temperature and Weather.

8 a.m.

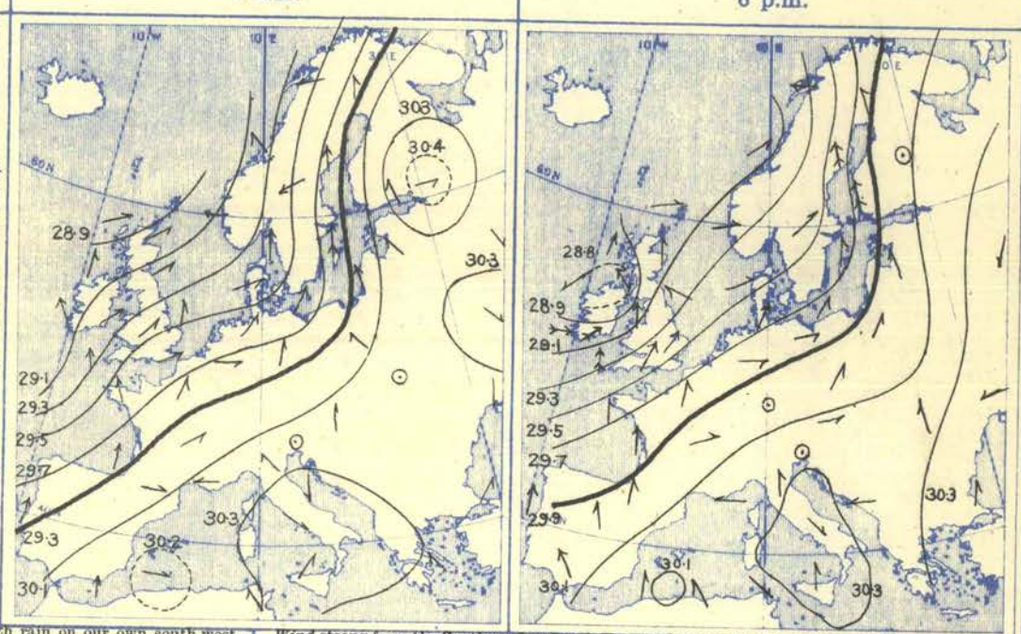


*Weather* in morning cloudy or dull over Europe as a whole, with rain on our own south-west coasts, as well as in Denmark and north Germany; snow falling in the south of Scandinavia, and also at St. Petersburg; foggy in Austria. Fine at several of our own northern and eastern stations as well as over the Spanish Peninsula, the extreme south of France, Greece, and the greater part of Russia. Rain falling later over north-western Europe generally; snow occurring over the northern parts of Russia and Scandinavia.

*Temperature* risen over western and northern Europe generally—rapidly in Sweden; fallen quickly over central Russia. Morning readings highest, 70° at Oran, 68° at Algiers, and 66° at Biarritz and Nemours; above 50° in the west of France and at some of the English Channel stations. Lowest, −15° at Archangel, −9° at Kuopio, and −6° at Moscow; below the freezing point in most parts of Russia and Scandinavia. Rising during day to between 57° and 59° at several of the English stations, exceeding 60° in several parts of France and southern Europe, and reaching 73° at Biarritz and Lisbon. Succeeding night unusually mild over England; thermometer in London not falling below 56°.

### Barometer and Wind.

8 a.m. 6 p.m.



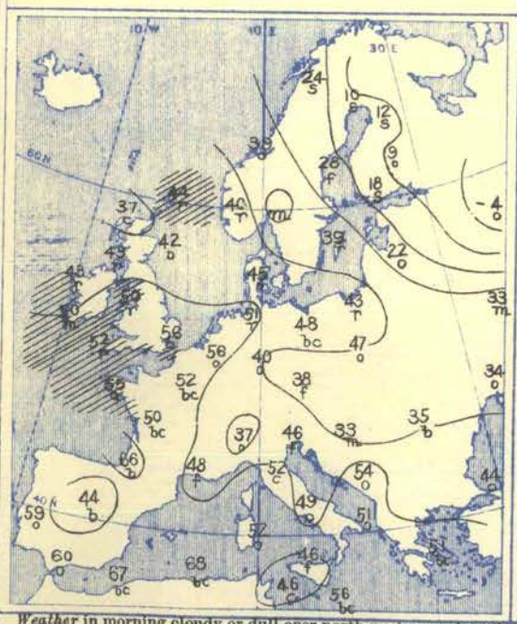
*Wind* strong from the Southward or South-Eastward over Portugal, the Bay of Biscay, and on our south-west coasts; moderate to fresh from the South-Westward over the northern and eastern parts of our Islands, and also over Denmark, Germany, the Netherlands, and central France; strong to a gale from the Southward over the Baltic and Sweden; South-Easterly or Easterly in Norway; light from the Westward in the north and east of Scotland. Light from the Northward or North-Westward over the central and southern parts of Russia; variable in Greece and Italy. Subsequently increasing to a gale from the Southward or South-Westward on our western coasts; wind shifting to the South-Westward in Norway.

*Barometer* highest, 30·47 ins. at Kharkov, 30·40 ins. at St. Petersburg; 30·2 ins. and upwards in an anticyclone covering nearly the whole of Russia and southern Europe. Lowest, 28·8 ins. and less in a depression off the north of Scotland; 29·0 ins. and less in another disturbance approaching the west of Ireland. Centre of latter disturbance subsequently advancing over the north of Ireland.

## Friday, 10th February.

### Temperature and Weather.

8 a.m.

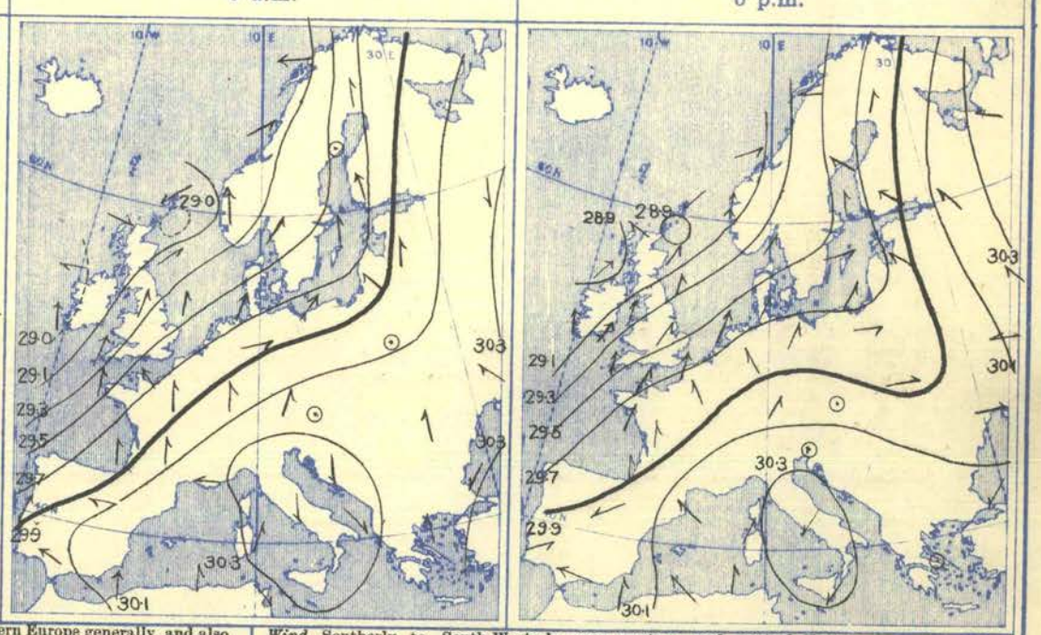


*Weather* in morning cloudy or dull over north-western and northern Europe generally, and also in Italy; rain falling at many of our own western stations, as well as in the south of Scandinavia. Fog reported in Sweden, Denmark, and Austria, and snow in Finland and the north of Scandinavia. Fine over France, Spain, and the greater part of Germany. Rain falling later in the west and north of our Islands generally, as well as at many of the Scandinavian stations; thunder and lightning occurring in the south of Ireland.

*Temperature* risen over our Islands and northern and central Europe generally; changed irregularly elsewhere. Morning readings highest, 68° at Algiers, 67° at Nemours, and 66° at Biarritz; as high as 56° in London, and 55° in several other parts of England. Lowest, −4° at Moscow, +9° at Kuopio, 10° at Haparanda, and 12° at Uleaborg; below the freezing point over Russia and the northern parts of Scandinavia generally. Rising during day to 60° and upwards at many of the English stations, and reaching 66° in London; the reading in the Metropolis being the highest recorded in February for more than 50 years past. Touching 66° also at Brussels, 69° at Paris and Belfort, and 77° at Biarritz.

### Barometer and Wind.

8 a.m. 6 p.m.



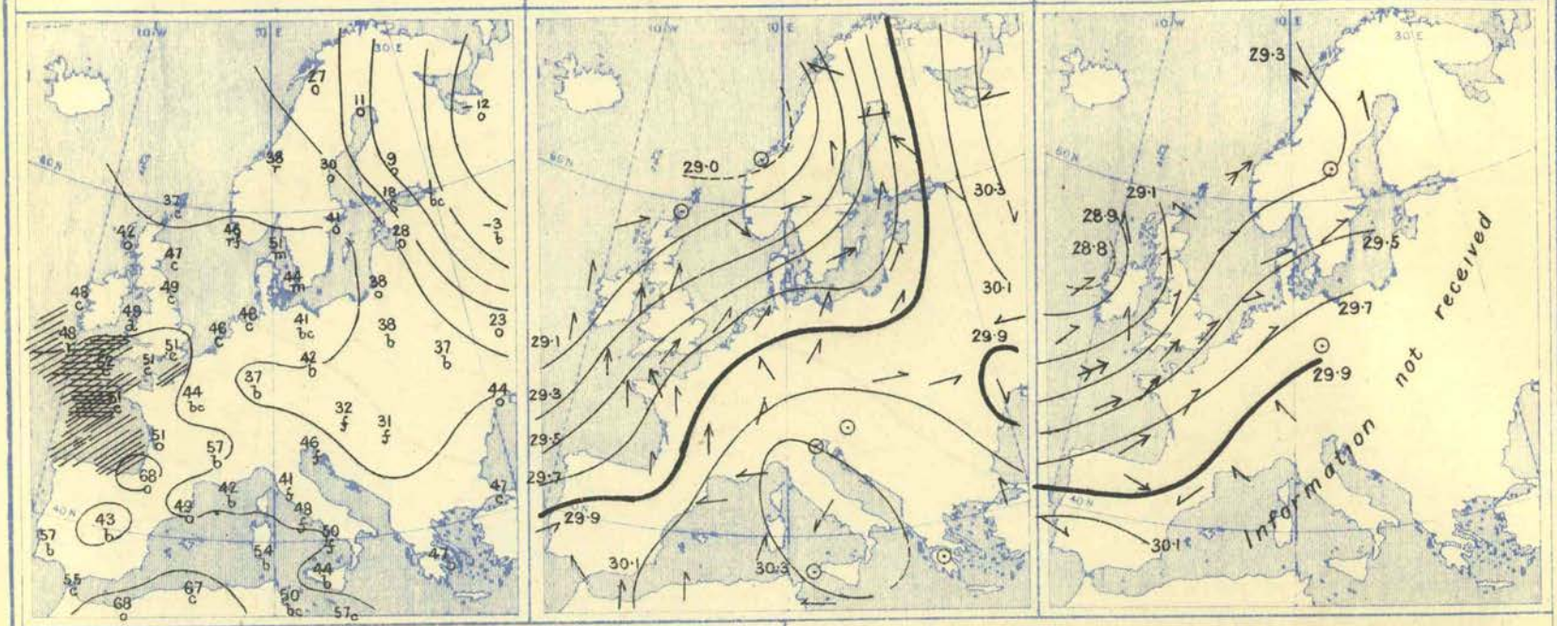
*Wind* Southerly to South-Westerly over western and central Europe generally, and strong to a gale in force on our own western coasts, but moderate from the South-Eastward or Eastward in the west of Ireland. Light from Westward in the north of Scotland, but from North-East in the Shetlands. Southerly or South-Easterly over Russia and the Gulf of Bothnia; Easterly at Bodö. Calm in Austria; variable in Italy; Easterly or South-Easterly over Spain and the extreme south of France. No important change occurring during day.

*Barometer* highest, 30·3 ins. and upwards in two areas—one lying over Italy, and the other over central and southern Russia and the Black Sea. Lowest, 28·9 ins. and less (apparently) in a depression off the west of Ireland; 29·0 ins. and less in a small shallow system off the north-east of Scotland. Irish depression subsequently moving northwards, and barometer rising in west.

## Saturday, 11th February.

Temperature and Weather. — 8 a.m.

Barometer and Wind. — 8 a.m. — 6 p.m.




*Weather* in morning fine over Denmark, Germany, the Netherlands, and the eastern and central parts of England and France, as well as in Spain. Cloudy or dull elsewhere, with rain at several of our own western stations and also in the west of Norway; snow reported in Finland. Foggy in Italy and Austria. Rain falling later over north-western Europe generally—heavily at some of our own south-western stations; lightning seen at Prawle Point at night.

*Temperature* risen over the northern parts of our Islands and the Continent, but fallen elsewhere. Morning readings highest, 68° at Biarritz and Nemours, 67° at Algiers, and 64° at Oran; above 55° at several stations in the western and central parts of France, and slightly above 50° in the south of England. Lowest, −12° Fahr. at Archangel, −3° at Moscow, +1° at St. Petersburg, and 9° at Kuopio; below the freezing point over Russia, Austria and the northern parts of Scandinavia generally. Rising during day to between 50° and 55° in many parts of the United Kingdom, and to 56° at Shields and Jersey; exceeding 60° in Belgium and France and reaching 77° at Biarritz.

*Wind* Southerly or South-Westerly over England, Ireland, France, Germany, and the Netherlands, and strong to a gale in force on our own western coasts. South-Westerly or Westerly in Denmark and the south of Scandinavia; South-Easterly or Easterly in the northern parts of Russia and Scandinavia. Calm in Austria; light from the Northward or North-Eastward in Italy; Easterly or North-Easterly over Spain and the extreme south of France. Subsequently backing to the South-Eastward in Scotland; no important change occurring elsewhere.

*Barometer* highest, 30·3 ins. and upwards in an anticyclone lying over Italy and also in another system over northern Russia. Lowest, 29·0 ins. and less in a depression off the west of Norway and apparently in another disturbance lying to the westward of our Islands; 29·9 ins. and less in a shallow system over the extreme south of Russia. Depression off Norwegian coasts subsequently moving north-eastwards; centre of Atlantic disturbance appearing off the north-west of Ireland in evening.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟶⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the commencement of the week, when barometric pressure was highest over southern Europe, the weather in the north-western and northern countries was affected by several depressions moving eastwards. These occasioned considerable variations in the winds, both as regards direction and force, and extremely unsettled weather, with frequent falls of rain or snow in most places.

The disturbances soon passed away, however, or dispersed, and on the 5th and 6th a new high-pressure system which had formed over the north of our Islands moved south-eastwards across the North Sea and central Europe, and eventually joined the anticyclone in the south. Still later another area of high readings was developed over Sweden and northern Russia, and for the remainder of the week pressure was high over the northern, eastern, and southern parts of Europe generally. In the western countries the weather was affected by a series of depressions moving northward along our own extreme west coasts. These occasioned frequent gales from the Southward or South-Westward in the west and south of our Islands, with a heavy rainfall in Ireland and Wales, fresh or strong winds from similar quarters, and less heavy rains being experienced in most other parts of western Europe. Temperature was high, especially on the 10th, when the thermometer rose to between 60° and 65° in many parts of England, and to 66° in London. At the close of the week pressure over northern Europe was giving way, and the Atlantic depressions were beginning to spread further eastward.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 32.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 10·1 | ? | 17 | ? |
| STRATHPEFFER SPA | 4·1 | − 7·9 | 7 | −13 |
| EDINBURGH | 7·0 | − 3·5 | 11 | − 8 |
| MORPETH | 12·2 | ? | 19 | ? |
| NEWCASTLE-ON-TYNE | 9·3 | ? | 15 | ? |
| OSWALDKIRK (Yorkshire) | 8·9 | − 3·9 | 14 | − 6 |
| HOLLESLEY BAY | 8·4 | ? | 13 | ? |
| SHEFFIELD | 5·3 | ? | 8 | ? |
| WORKSOP | 3·8 | − 8·5 | 6 | −13 |
| THURCASTON (Leicestershire) | 4·3 | − 8·0 | 7 | −12 |
| PLUMSTEAD COMMON | 8·7 | ? | 13 | ? |
| MARGATE | 3·3 | −11·4 | 5 | −17 |
| WESTBOURNE (Emsworth) | 11·2* | − 4·8 | 17* | − 9 |
| WATERGATE (Emsworth) | | | | |
| BRIGHTON | 6·0 | − 9·5 | 9 | −15 |
| BOGNOR | 11·3* | ? | 17* | ? |
| EASTBOURNE | 4·5 | −11·3 | 7 | −16 |
| VENTNOR HOSPITAL | 10·3 | ? | 16 | ? |
| SOUTHPORT | 4·6 | ? | 7 | ? |
| COLWYN BAY | 11·9 | ? | 18 | ? |
| ABERDOVEY | 15·6* | ? | 24* | ? |
| TENBY | 11·5 | − 6·3 | 18 | −10 |
| NEWQUAY | 20·0 | + 3·2 | 30 | + 5 |
| TORQUAY | 12·0* | − 3·8 | 18* | − 6 |
| GUERNSEY | 18·4* | + 0·4 | 27* | 0 |

* The values at Westbourne, Bognor, Torquay, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

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VOL. XVI. NO. 7.] *Third Series.* WEEK ENDING SATURDAY, FEBRUARY 18TH, 1899. [*Price 6d.* *Annual Subscription post paid* £1 10s. 0d.

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 38.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 52 | 32 | 46·6 | 38·2 | 42·4 | 4 above | 19 | +12 | 11 | −25 | 27 | − 18 | 250 | − 41 |
| | 1. SCOTLAND, EAST | 54 | 30 | 47·1 | 37·0 | 42·1 | 5 above | 22 | +13 | 14 | −28 | 30 | − 24 | 286 | − 22 |
| | 2. ENGLAND, N.E. | 51 | 27 | 48·5 | 36·4 | 42·5 | 4 above | 27 | +18 | 16 | −19 | 96 | + 48 | 181 | − 96 |
| | 3. ENGLAND, EAST | 58 | 33 | 50·8 | 39·6 | 45·3 | 7 above | 33 | +21 | 7 | −33 | 137 | + 81 | 141 | −177 |
| | 4. MIDLAND COUNTIES | 57 | 31 | 50·6 | 37·8 | 44·2 | 5 above | 33 | +21 | 12 | −27 | 134 | + 68 | 179 | −137 |
| | 5. ENGLAND SOUTH | 57 | 36 | 51·3 | 41·7 | 46·5 | 6 above | 33 | +19 | 1 | −30 | 168 | + 93 | 89 | − 167 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 50 | 30 | 47·7 | 39·6 | 43·7 | 4 above | 22 | +12 | 7 | −22 | 72 | + 5 | 184 | − 36 |
| | 7. ENGLAND, N.W. | 55 | 30 | 50·1 | 39·3 | 44·7 | 5 above | 20 | +20 | 8 | −21 | 124 | + 67 | 134 | − 97 |
| | 8. ENGLAND, S.W. | 63 | 34 | 51·3 | 41·0 | 46·1 | 5 above | 33 | +16 | 3 | −21 | 176 | + 74 | 85 | −102 |
| | 9. IRELAND, NORTH | 50 | 30 | 47·9 | 38·3 | 43·1 | 2 above | 23 | + 9 | 10 | −15 | 93 | + 4 | 168 | − 24 |
| | 10. IRELAND, SOUTH | 54 | 29 | 49·7 | 39·3 | 44·5 | 2 above | 29 | + 8 | 8 | −10 | 169 | + 35 | 108 | − 42 |
| | —CHANNEL ISLANDS | 58 | 37 | 53·3 | 42·8 | 48·1 | 4 above | 43 | +21 | 0 | −11 | 296 | +149 | 29 | − 57 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 38.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 6 | 15 | 4 more | 35 | − 1 | 8·1 | − 0·4 | 7 | − 5 | 10 | − 8 | 57 | + 4 | 14 | + 1 |
| | 1. SCOTLAND, EAST | 5 | 8 | 2 more | 34 | + 7 | 5·8 | + 1·4 | 15 | − 1 | 22 | − 3 | 73 | 0 | 19 | 0 |
| | 2. ENGLAND, N.E. | 4 | 3 | 1 less | 33 | + 7 | 3·5 | + 0·4 | 19 | + 2 | 29 | + 3 | 75 | 0 | 18 | 0 |
| | 3. ENGLAND, EAST | 4 | 5 | 1 more | 33 | + 6 | 3·5 | + 0·4 | 25 | + 6 | 37 | + 8 | 128 | + 31 | 29 | + 8 |
| | 4. MIDLAND COUNTIES | 4 | 9 | 4 more | 34 | + 8 | 6·0 | + 2·2 | 19 | + 3 | 28 | + 4 | 87 | + 10 | 22 | + 2 |
| | 5. ENGLAND, SOUTH | 4 | 8 | 3 more | 32 | + 6 | 5·4 | + 1·2 | 23 | + 6 | 33 | + 8 | 112 | + 23 | 26 | + 5 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 6 | 11 | 0 (average) | 36 | + 4 | 9·1 | + 0·6 | 16 | + 2 | 24 | + 3 | 67 | − 1 | 17 | 0 |
| | 7. ENGLAND, N.W. | 5 | 6 | 0 (average) | 35 | + 6 | 6·9 | + 2·2 | 16 | + 1 | 24 | 0 | 81 | + 7 | 20 | + 2 |
| | 8. ENGLAND, S.W. | 4 | 15 | 7 more | 34 | + 4 | 11·0 | + 5·0 | 17 | − 2 | 24 | − 3 | 98 | 0 | 23 | 0 |
| | 9. IRELAND, NORTH | 6 | 7 | 0 (average) | 39 | + 6 | 6·3 | + 0·8 | 21 | + 6 | 32 | + 9 | 91 | + 11 | 23 | + 2 |
| | 10. IRELAND, SOUTH | 5 | 11 | 3 more | 37 | + 6 | 10·2 | + 4·0 | 23 | + 6 | 34 | + 9 | 97 | + 1 | 24 | + 1 |
| | — CHANNEL ISLANDS | 4 | 7 | 0 (average) | 34 | + 1 | 7·2 | + 2·0 | 20 | + 1 | 28 | + 1 | 105 | − 3 | 25 | − 1 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was again very mild, unsettled, and rainy generally. Thunderstorms were experienced at some of the Irish and English stations between the 12th and 14th. Some improvement took place over the greater part of England during the latter part of the week, and fog became general over England on the 18th.

*Temperature* was above the mean, the excess ranging from 2° in Ireland, to as much as 6° in England S., and 7° in England E. The highest of the maxima were recorded on the 17th, when they ranged from 63° in England S.W. (at Llandovery), and from 58° in the Channel Islands and England E., to 51° in England N.E., and to 50° in Scotland W., and Ireland, N. The lowest of the minima were registered on the 16th, and ranged from 27° in England N.E., and from 29° in Ireland S., to 36° in England S., and 37° in the Channel Islands.

*Rainfall* was rather less than the mean in England N.E., and just equal to it in Scotland W., England, N.W., Ireland N., and the Channel Islands. In all other districts there was some excess, the fall in the Midland Counties and England S.W. being nearly double the normal value.

*Bright Sunshine* was in excess in most parts of the Kingdom, but somewhat deficient in Scotland N. and E., and England S.W. The percentage of the possible duration ranged from 37 in England E., 34 in Ireland S., and 33 in England S., to 22 in Scotland E., and 10 in Scotland N.

*Barometer and Wind.*—During the earlier part of the period deep depressions continued to advance to our western coasts from the Atlantic, causing a continuance of the South-Westerly and Southerly gales in most parts of the Kingdom, but as the week progressed a barometric rise spread over our Islands from the Continent, and the series of disturbances from the westward came to an end. Some small shallow systems, however, were developed in various parts of the Kingdom, and caused considerable falls of rain, and on Saturday morning a large irregularly-shaped shallow area of low pressure covered almost the entire Kingdom.

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613 | 70 2 | 99.

# II.—DATA from which the SUMMARY on page 37 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 48 | 35 | 45·6 | 39·7 | 42·7 | + 4·7 | 15 | 6 | 6 | 1·42 | + 0·64 | * | * | * | * |
| | Stornoway | 49 | 32 | 47·9 | 37·0 | 42·5 | + 3·5 | 25 | 14 | 7 | 2·35 | + 1·40 | 9·4 | - 5·6 | 14 | - 9 |
| | Wick | 48 | 36 | 46·3 | 38·9 | 42·6 | + 4·6 | 17 | 9 | 4 | 0·60 | + 0·05 | * | * | * | * |
| | Lairg Ⓢ | 52 | 32 | 46·4 | 35·5 | 41·0 | + 4·4 | 12 | 26 | 5 | 0·35 | - 0·42 | * | * | * | * |
| | Glencarron Ⓢ | 49 | 33 | 46·5 | 37·9 | 42·2 | + 5·2 | 19 | 11 | 7 | 2·01 | + 0·31 | * | * | * | * |
| | Fort Augustus Ⓢ | 50 | 34 | 46·8 | 38·2 | 42·5 | + 3·9 | 19 | 11 | 7 | 1·23 | + 0·25 | 5·2 | - 3·8 | 8 | - 6 |
| | Fort William Ⓢ | 49 | 38 | 47·0 | 39·9 | 43·5 | + 4·5 | 19 | 6 | 7 | 2·45 | + 0·53 | 4·4 | - 8·6 | 7 | -13 |
| 1. SCOTLAND E. | Nairn | 54 | 33 | 48·4 | 36·3 | 42·4 | + 4·4 | 27 | 16 | 4 | 0·83 | + 0·41 | * | * | * | * |
| | Aberdeen | 51 | 33 | 47·3 | 37·6 | 42·5 | + 4·5 | 22 | 12 | 4 | 0·68 | + 0·10 | 13·3 | - 4·6 | 20 | - 7 |
| | Braemar Ⓢ | 45 | 30 | 42·5 | 34·7 | 38·6 | + 3·8 | 1 | 26 | 4 | 0·74 | + 0·04 | 7·0† | - 9·2† | 11† | -16† |
| | Ochtertyre Ⓢ | 50 | 32 | 46·6 | 36·3 | 41·5 | + 4·3 | 13 | 24 | 7 | 1·50 | + 0·60 | * | * | * | * |
| | Leith | 54 | 36 | 49·3 | 39·0 | 44·2 | + 4·4 | 28 | 8 | 4 | 0·67 | + 0·29 | * | * | * | * |
| | Marchmont Ⓢ | 54 | 31 | 48·6 | 38·3 | 43·5 | + 6·3 | 26 | 10 | 5 | 0·52 | - 0·06 | 21·5 | + 5·4 | 33 | + 8 |
| 2. ENGLAND, N.E. | Alnwick Castle | 51 | 29 | 49·0 | 35·4 | 42·2 | + 3·9 | 29 | 18 | 6 | 0·70 | + 0·18 | * | * | * | * |
| | Durham | 50 | 27 | 47·6 | 35·1 | 41·4 | + 3·4 | 16 | 28 | 4 | 0·27 | - 0·13 | 24·1 | + 8·3 | 36 | +11 |
| | Shields | 51 | 31 | 50·1 | 36·3 | 43·2 | + 4·1 | 32 | 16 | 4 | 0·18 | - 0·18 | * | * | * | * |
| | Scarborough Ⓜ | 50 | 31 | 48·3 | 35·7 | 42·0 | + 3·0 | 18 | 18 | 3 | 0·10 | - 0·32 | 17·4 | ? | 26 | ? |
| | York | 51 | 31 | 48·3 | 36·6 | 42·5 | + 3·7 | 26 | 15 | 4 | 0·13 | - 0·27 | 13·8 | - 0·1 | 21 | 0 |
| | Spurn Head | 51 | 37 | 47·9 | 39·4 | 43·7 | + 4·7 | 23 | 7 | 4 | 0·51 | + 0·19 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 54 | 35 | 51·7 | 38·6 | 45·2 | + 7·0 | 37 | 10 | 3 | 0·36 | - 0·06 | 25·8 | + 8·8 | 38 | +13 |
| | Yarmouth | 52 | 39 | 48·4 | 41·0 | 44·7 | + 6·5 | 23 | 3 | 2 | 0·46 | + 0·05 | * | * | * | * |
| | Geldeston | 54 | 34 | 51·4 | 39·2 | 45·3 | + 6·3 | 35 | 8 | 4 | 0·37 | - 0·01 | 25·9 | + 8·4 | 38 | +12 |
| | Cambridge | 58 | 35 | 53·6 | 38·9 | 46·3 | + 7·3 | 43 | 9 | 2 | 0·33 | - 0·02 | 24·7 | + 7·8 | 36 | +11 |
| | Felixstowe | 51 | 38 | 49·1 | 41·7 | 45·4 | + 5·9 | 25 | 1 | 5 | 0·65 | ? | 35·3 | ? | 52 | ? |
| | Rothamsted | 53 | 33 | 50·7 | 38·4 | 44·6 | + 6·4 | 33 | 10 | 6 | 0·57 | + 0·08 | 14·3 | - 1·7 | 21 | - 3 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 52 | 31 | 49·9 | 36·6 | 43·3 | + 4·3 | 32 | 15 | 3 | 0·76 | + 0·38 | * | * | * | * |
| | Loughborough | 55 | 36 | 51·6 | 39·0 | 45·3 | + 6·1 | 36 | 8 | 3 | 0·65 | + 0·24 | * | * | * | * |
| | Stamford (Duddington) | 53 | 34 | 50·9 | 38·4 | 44·7 | + 5·8 | 34 | 10 | 3 | 0·51 | + 0·11 | * | * | * | * |
| | Cheadle Ⓜ | 51 | 34 | 48·5 | 36·5 | 42·5 | + 4·7 | 27 | 15 | 4 | 0·84 | + 0·26 | * | * | * | * |
| | Shirley (near Solihull) | 54 | 33 | 50·0 | 37·7 | 43·9 | + 5·1 | 31 | 12 | 5 | 0·97 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 57 | 31 | 50·8 | 37·1 | 44·0 | + 5·2 | 35 | 14 | 4 | 1·33 | + 0·75 | 18·1 | + 2·1 | 27 | + 4 |
| | Hereford Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 57 | 32 | 50·7 | 37·4 | 44·1 | + 5·8 | 34 | 13 | 4 | 1·07 | + 0·50 | 20·0 | +12·4 | 29 | + 3 |
| | Oxford | 56 | 36 | 52·0 | 40·0 | 46·0 | + 6·2 | 36 | 6 | 4 | 0·66 | + 0·24 | 22·4 | + 6·4 | 33 | +10 |
| 5. ENGLAND, S. | London | 57 | 37 | 52·6 | 40·6 | 46·6 | + 6·6 | 38 | 4 | 4 | 0·72 | + 0·32 | 12·3† | + 3·3† | 18† | + 4† |
| | Cranley Ⓜ | 55 | 36 | 51·9 | 39·4 | 45·7 | + 5·8 | 37 | 7 | 5 | 0·97 | ? | * | * | * | * |
| | Dungeness | 52 | 39 | 51·1 | 42·1 | 46·6 | + 6·8 | 32 | 0 | 4 | 0·42 | - 0·01 | * | * | * | * |
| | Hastings (St. Leonards) | 52 | 39 | 49·9 | 42·3 | 46·1 | + 6·1 | 29 | 0 | 5 | 0·71 | + 0·21 | 25·8 | + 5·8 | 37 | + 8 |
| | Southampton | 54 | 38 | 52·4 | 42·9 | 47·7 | + 6·7 | 40 | 0 | 5 | 1·01 | + 0·43 | 19·6 | + 1·3 | 28 | + 1 |
| | Hurst Castle | 57 | 41 | 51·9 | 43·7 | 47·8 | + 6·9 | 41 | 0 | 3 | 0·85 | + 0·35 | * | * | * | * |
| | Shaftesbury Ⓜ | 51 | 38 | 49·0 | 40·6 | 44·8 | + 6·0 | 25 | 4 | 5 | 0·95 | + 0·30 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 50 | 37 | 47·4 | 40·1 | 43·8 | + 3·8 | 21 | 5 | 6 | 1·79 | + 0·09 | * | * | * | * |
| | Glasgow | 49 | 36 | 47·4 | 39·9 | 43·7 | + 4·7 | 21 | 6 | 6 | 0·76 | - 0·05 | 10·6 | + 0·2 | 16 | 0 |
| | Ardrossan | 48 | 38 | 46·9 | 41·7 | 44·3 | + 4·0 | 17 | 1 | 5 | 0·62 | - 0·10 | * | * | * | * |
| | Glenlee Ⓢ | 49 | 30 | 47·9 | 36·9 | 42·4 | + 4·2 | 24 | 14 | 7 | 1·37 | + 0·19 | * | * | * | * |
| | Douglas (Isle of Man) | 50 | 33 | 48·9 | 39·3 | 44·1 | + 3·3 | 26 | 8 | 5 | 0·71 | - 0·09 | 20·5 | + 3·5 | 31 | + 6 |
| 7. ENGLAND, N.W. | Stonyhurst | 51 | 33 | 48·9 | 38·4 | 43·7 | + 4·9 | 27 | 10 | 5 | 0·59 | - 0·26 | 18·9 | + 4·9 | 28 | + 7 |
| | Blackpool Ⓜ | 52 | 30 | 50·5 | 36·9 | 43·7 | + 4·5 | 33 | 14 | 6 | 0·97 | + 0·44 | 10·6 | - 3·9 | 16 | - 6 |
| | Manchester (Prestwich) | 53 | 30 | 50·7 | 38·1 | 44·4 | + 5·6 | 33 | 11 | 4 | 0·26 | - 0·27 | 12·1 | ? | 18 | ? |
| | Liverpool Obsy. (Bidston) | 52 | 36 | 50·1 | 38·9 | 44·5 | + 4·3 | 31 | 9 | 4 | 0·41 | + 0·01 | 16·3 | ? | 24 | ? |
| | Llandudno Ⓜ | 55 | 36 | 50·9 | 41·5 | 46·2 | + 4·4 | 32 | 1 | 5 | 0·60 | + 0·10 | 16·9 | + 0·6 | 25 | 0 |
| | Holyhead | 51 | 39 | 49·3 | 42·0 | 45·7 | + 3·7 | 26 | 0 | 6 | 0·58 | - 0·02 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 63 | 35 | 53·1 | 38·9 | 46·0 | + 7·0 | 41 | 9 | 6 | 0·99 | + 0·01 | * | * | * | * |
| | Pembroke | 50 | 40 | 49·1 | 44·3 | 46·7 | + 4·5 | 33 | 0 | 4 | 0·79 | + 0·14 | 13·2 | - 5·8 | 19 | - 9 |
| | Clifton | 56 | 35 | 51·8 | 40·9 | 46·4 | + 5·6 | 35 | 3 | 4 | 1·79 | + 1·17 | * | * | * | * |
| | Arlington (N. Devon) | 57 | 35 | 50·7 | 39·3 | 45·0 | + 4·2 | 32 | 8 | 4 | 0·95 | - 0·04 | * | * | * | * |
| | Cullompton Ⓜ | 58 | 34 | 52·1 | 39·0 | 45·6 | + 4·6 | 38 | 8 | 4 | 2·19 | + 1·47 | 16·6 | - 0·2 | 24 | - 1 |
| | Falmouth | 54 | 38 | 51·3 | 42·0 | 46·7 | + 3·0 | 33 | 0 | 5 | 1·56 | + 0·59 | 18·5 | - 1·2 | 26 | — 2 |
| | Plymouth | 56 | 34 | 51·0 | 41·9 | 46·5 | + 3·9 | 32 | 0 | 4 | 1·83 | + 1·13 | 18·5 | - 1·2 | 26 | - 2 |
| | Prawle Point | 54 | 39 | 50·9 | 41·4 | 46·2 | + 4·1 | 32 | 2 | 4 | 1·67 | + 1·19 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 48 | 38 | 45·9 | 40·0 | 43·0 | + 1·0 | 15 | 6 | 6 | 0·18 | ? | * | * | * | * |
| | Londonderry | 50 | 34 | 48·5 | 37·7 | 43·1 | + 2·1 | 26 | 12 | 7 | 0·53 | - 0·15 | * | * | * | * |
| | Edenfel (Omagh) | 48 | 32 | 46·7 | 36·7 | 41·7 | + 2·7 | 13 | 22 | 4 | 0·74 | + 0·14 | * | * | * | * |
| | Belmullet | 49 | 40 | 47·9 | 41·1 | 44·5 | + 1·5 | 21 | 3 | 7 | 1·24 | + 0·19 | * | * | * | * |
| | Markree Castle | 50 | 30 | 48·5 | 36·5 | 42·5 | + 2·3 | 27 | 15 | 6 | 0·92 | + 0·24 | 19·7 | + 4·5 | 29 | + 6 |
| | Armagh | 50 | 36 | 48·8 | 37·3 | 43·1 | + 3·1 | 27 | 13 | 5 | 0·74 | + 0·17 | 23·1 | + 8·3 | 34 | +12 |
| | Donaghadee | 50 | 37 | 49·3 | 38·7 | 44·0 | + 3·0 | 28 | 9 | 5 | 0·58 | + 0·02 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 54 | 36 | 50·2 | 41·5 | 45·9 | + 3·7 | 29 | 1 | 4 | 0·22 | - 0·28 | 20·9 | + 3·5 | 31 | + 6 |
| | Parsonstown | 51 | 33 | 48·6 | 37·6 | 43·1 | + 2·1 | 26 | 12 | 6 | 0·93 | + 0·41 | 22·3 | + 6·2 | 33 | + 8 |
| | Kilkenny | 51 | 29 | 49·1 | 38·3 | 43·7 | + 1·9 | 27 | 10 | 5 | 0·45 | - 0·20 | * | * | * | * |
| | Roche's Point | 51 | 36 | 50·3 | 41·3 | 45·8 | + 2·0 | 30 | 2 | 6 | 1·24 | + 0·19 | * | * | * | * |
| | Valencia | 52 | 35 | 50·4 | 40·3 | 45·4 | + 0·4 | 31 | 5 | 7 | 1·99 | + 0·76 | 26·3 | + 8·8 | 39 | +13 |
| | Killarney | 52 | 34 | 50·4 | 38·4 | 44·4 | + 0·7 | 32 | 10 | 5 | 1·79 | ? | * | * | * | * |
| | Foynes | 51 | 33 | 48·8 | 37·8 | 43·3 | + 1·4 | 27 | 12 | 5 | 1·27 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 55 | 40 | 52·7 | 44·0 | 48·4 | + 2·6 | 45 | 0 | 5 | 0·98 | + 0·33 | 12·7 | ? | 18 | ? |
| | Jersey | 58 | 37 | 53·9 | 41·6 | 47·8 | + 4·8 | 42 | 1 | 3 | 0·32 | - 0·28 | 20·0 | - 2·1 | 29 | - 4 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

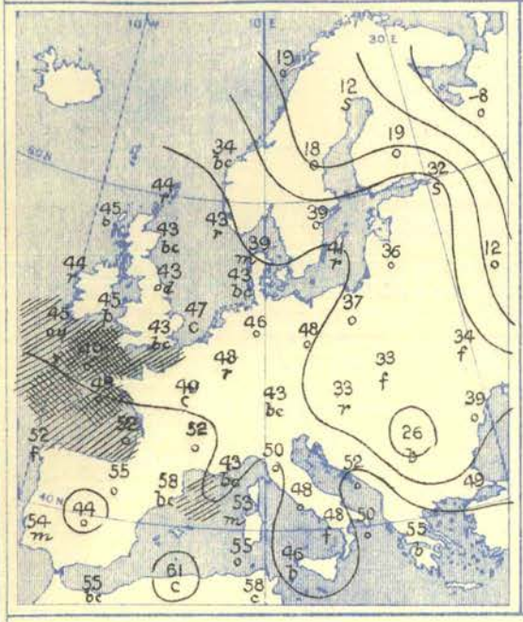
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 12th February.

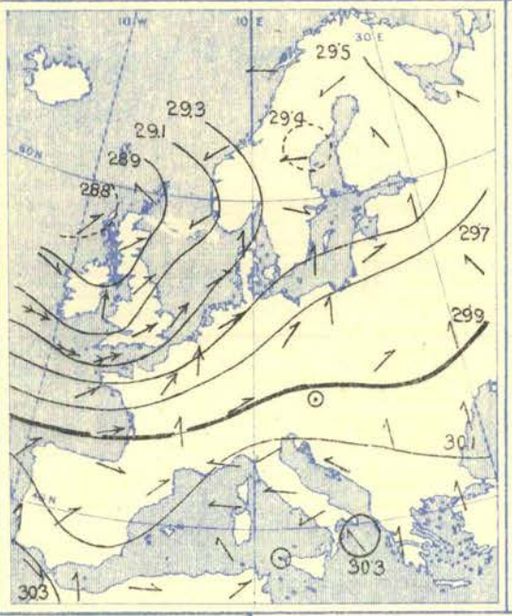
### Temperature and Weather.

8 a.m.

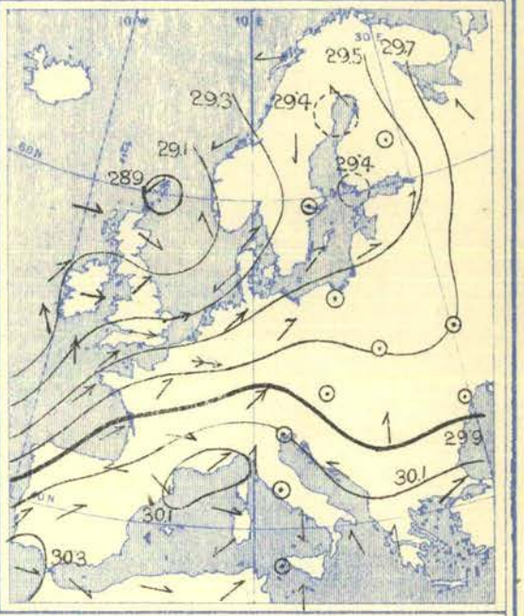


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning very rough and squally over the whole of England, the Channel, France, and Ireland; less rough in Scotland and on the Continent, but very unsettled over our Islands generally; fog and rain over the Baltic; rain in many parts of our Islands. Rain falling later over all but the most southern and eastern countries of Europe, but quantities not very large anywhere.

*Temperature* fallen a little over the north-western and western countries. Morning readings highest, 61° to 55° on the southern sides of the Mediterranean, 55° to 52° on the Atlantic shores of the Peninsula, 49° to 42° over our Islands. Lowest, −8° at Archangel, +12° at Moscow and Haparanda, 32° at Cracow, 34° at Christiansund, 37° at Parsonstown. Not touching 50° in several parts of Scotland and Ireland later, but rising above that value at our southern and south-western stations, and reaching 53° at Paris, 62° at Lyons, 63° at Biarritz, 66° at Cagliari, 79° at La Calle.

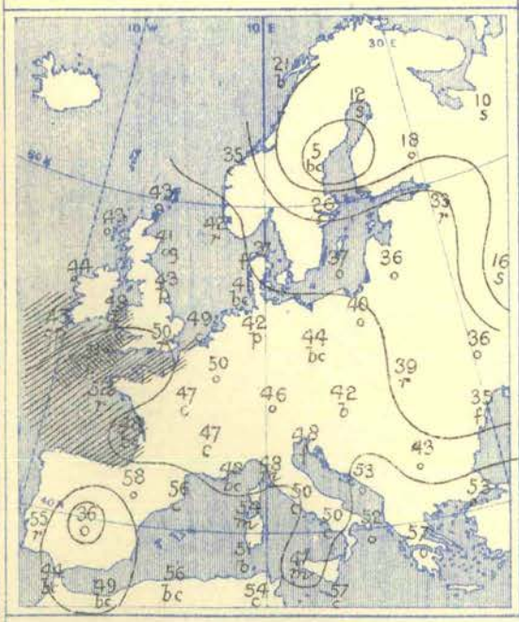
*Wind* light to moderate over the whole of Continental Europe; blowing hard from South and West over England and the north of France, with severe squalls, rather hard from North-West in Ireland, but with moderate force in Scotland. Severe gales experienced over England, the Channel, and France during the day.

*Barometer* in morning highest, 30·2 ins. to 30·0 ins. over the Iberian Peninsula and the Mediterranean, and exceeding 29·7 ins. over the southern half of Russia. Lowest, below 28·8 ins. in the Hebrides, and below 29·0 ins. in a deep secondary system spreading southward over the Irish Sea and Ireland. Gradients steep over England, the Channel, and north of France. The secondary system passing eastwards later, but growing less deep. Other disturbances following.

## Monday, 13th February.

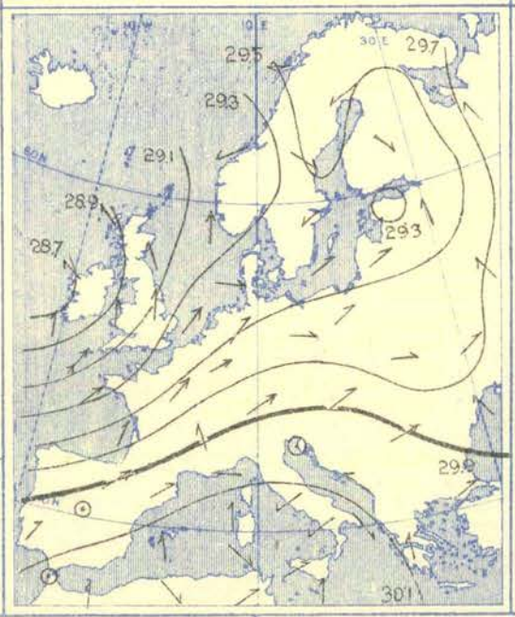
### Temperature and Weather.

8 a.m.

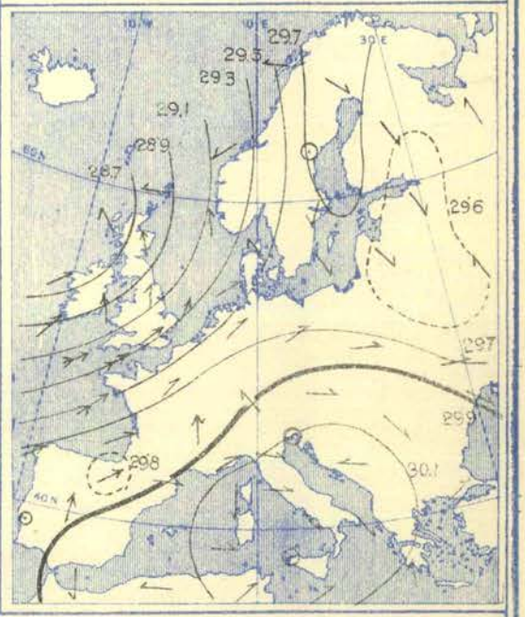


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning still fine over the Mediterranean and southern Europe, very dull, squally and unsettled over the British Islands and their neighbourhood, especially over England and Ireland. Rain throughout our Islands later as well as in the west of France and countries lying to the eastward of the North Sea; some snow over northern Europe.

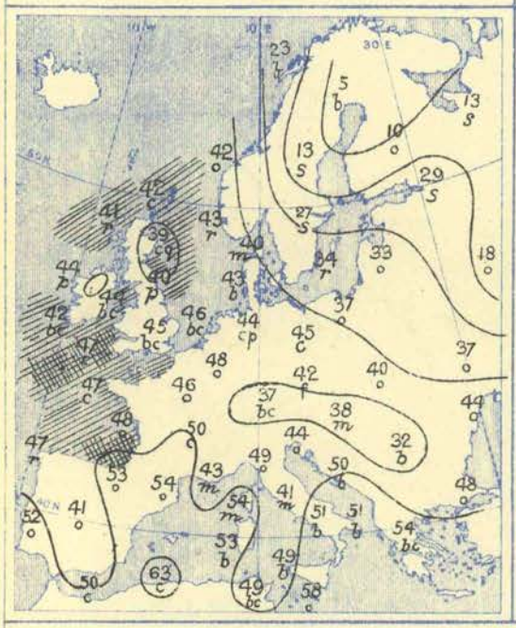
*Temperature* risen in our Islands. Morning readings highest, 64° at Bilbao; exceeding 55° in many parts of the Mediterranean; 51° at Scilly, Hurst Castle and Cambridge. Lowest, 5° at Hernösand, 12° at Haparanda, 16° at Moscow; 35° at Christiansund, 39° at Nairn. Rising later to between 50° and 56° over the greater part of our Islands, to 59° at Paris, 64° at Biarritz, to 66° at Palermo, and 72° at Oran.

*Wind* very variable in direction and moderate in force over southern Europe; South-Westerly, strong in the north of France and north Germany. South-South-Westerly, strong to a gale over England and St. George's Channel. South-Easterly, light in Scotland. A strong Southerly gale felt over the southern parts of England at night.

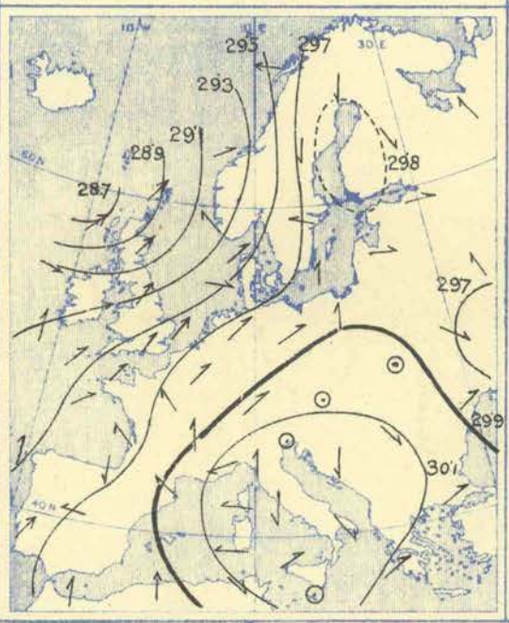
*Barometer* highest, 30·21 ins. at Cagliari, 30·1 ins. and more to 30·0 ins. over southern Europe generally; exceeding 29·5 ins. over the north of Scandinavia. Lowest, 28·7 ins. and less in a depression off the south of Ireland. Gradients steep, especially over England and the north and north-west of France. Depression in west moving north-eastwards later; a secondary system advancing over the south of England from the south-westward.

## Tuesday, 14th February.

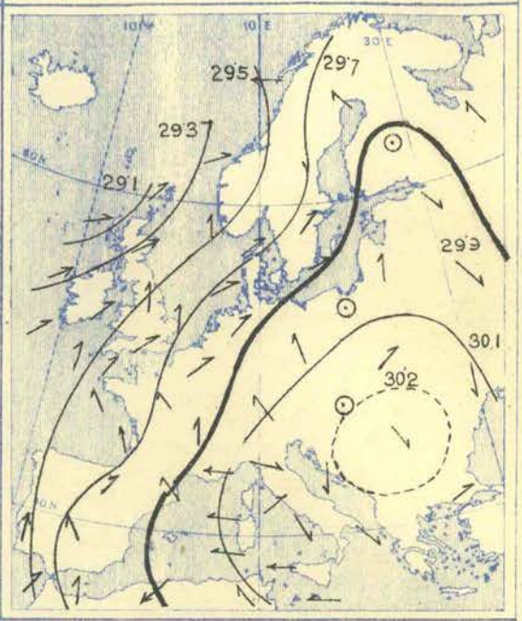
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning still fair, but hazy over southern and central Europe, variable, but improving over the British Islands, with showers at several western and northern stations; hail at Oxford. Showers later in several parts of the Kingdom; hail in some parts of London (most in the south-east districts), but improvement on the whole continuing.

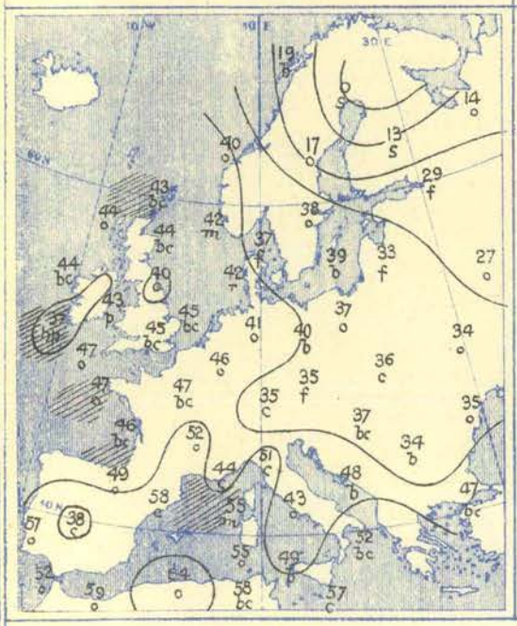
*Temperature* decreasing unsteadily over western Europe. Morning readings highest, 63° at Algiers, 54° at Barcelona and Bilbao, 47° at Brest and Scilly, 44° at Holyhead, 42° at Christiansund. Lowest, −8° Fahr. at Uleaborg, +10° at Kuopio, 18° at Moscow, 22° at Helsingfors. Rising later to between 50° and 55° in several parts of the British Islands to 54° at Paris, 55° at Berlin, 59° at Belfort, 66° at Biarritz and Palermo, and to 68° at La Calle (Algeria), but not touching 50° in most parts of Scotland.

*Wind* light in force and anticyclonic in direction over southern and central Europe; Southerly, strong in Great Britain; Westerly and variable in Ireland. Still Southerly and strong in Portugal, but North-North-West in the Azores. No important change later.

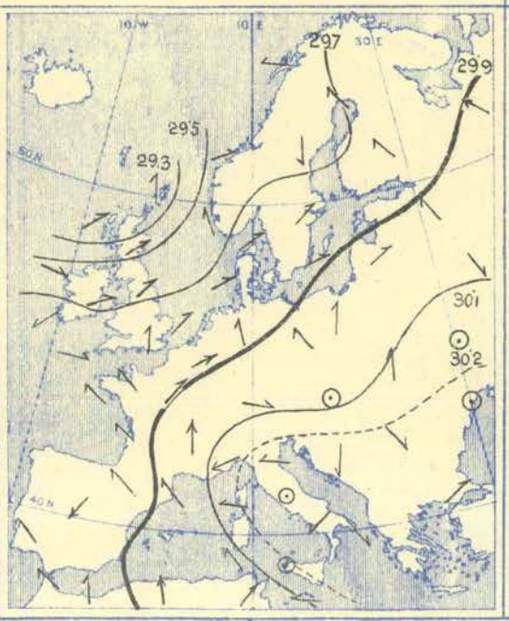
*Barometer* highest, 30·2 ins. to 29·9 ins. over the Mediterranean, Italy, south-eastern and central Europe, and exceeding 29·8 ins. over the Gulf of Bothnia. Lowest, (1) 28·7 ins. to the north-westward of the Hebrides; (2) below 29·5 ins. to the north-westward of Corunna. Rising later all over the United Kingdom; falling slightly in Portugal. Increasing to nearly 30·3 ins. over south-eastern Europe.

## Wednesday, 15th February.

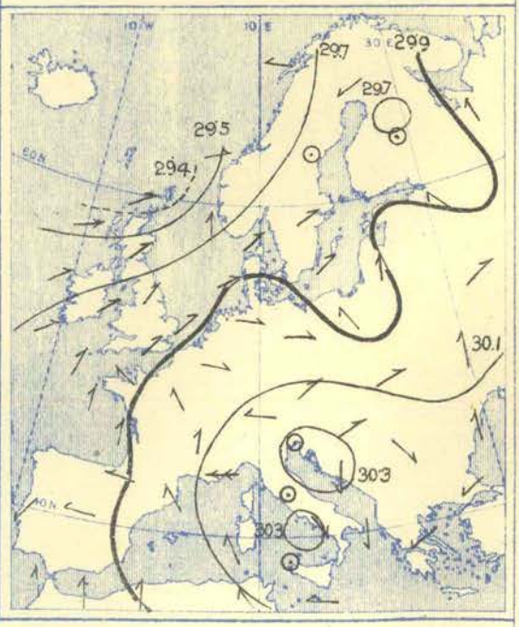
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and quiet all over south and south-eastern Europe, and much less disturbed over the British Isles and their neighbourhood than of late, but showers of rain and hail still reported from some of our south-western and western stations; snow at Haparanda. A great deal of rain falling later in the south and east of England, and in Holland at night, and a fresh fall subsequently in the west of Ireland.

*Temperature* in morning highest, 64° at Algiers, and exceeding 50° at the Mediterranean stations generally, 47° at Brest and Scilly, 45° in London, 44° at Belmullet, Ardrossan and Stornoway. Lowest, (1) 0° Fahr. (zero) at Haparanda, 13° at Kuopio, 27° at Moscow, 32° to 35° in south Germany; (2) 35° at Parsonstown, 37° at Valencia. Not touching 50° at most of the Scotch stations later, but slightly exceeding that value over many parts of England and Ireland, 60° at Paris, and 63° at Perpignan.

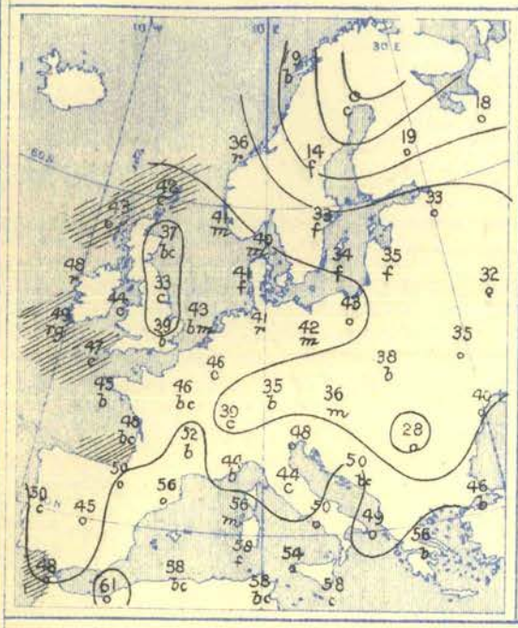
*Wind* Easterly and South-Easterly over southern Europe, Westerly to Southerly over most of the northern countries, and of moderate force, falling lighter in the north of the United Kingdom later, and becoming South-Westerly in Ireland.

*Barometer* highest, 30·2 ins. and more to 30·5 ins. over the whole of south-eastern and eastern Europe. Lowest, 29·3 ins. over the northern parts of Scotland and its neighbourhood. Some irregularity observable off our south-west coasts. Little change in our Islands later, but apparently a local fall occurring over the north-west of France

## Thursday, 16th February.

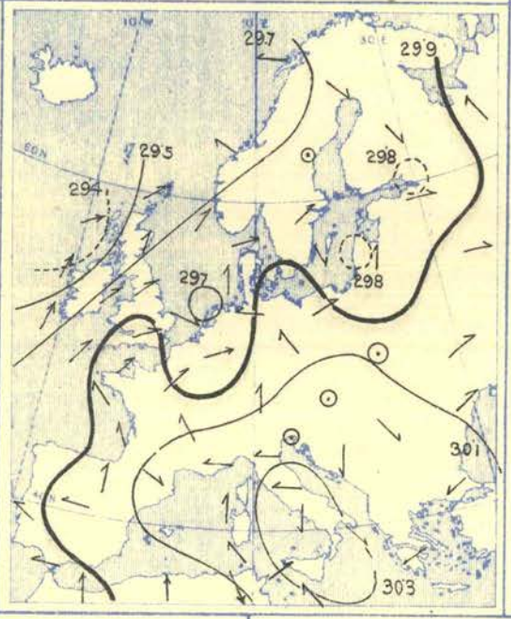
### Temperature and Weather.

8 a.m.

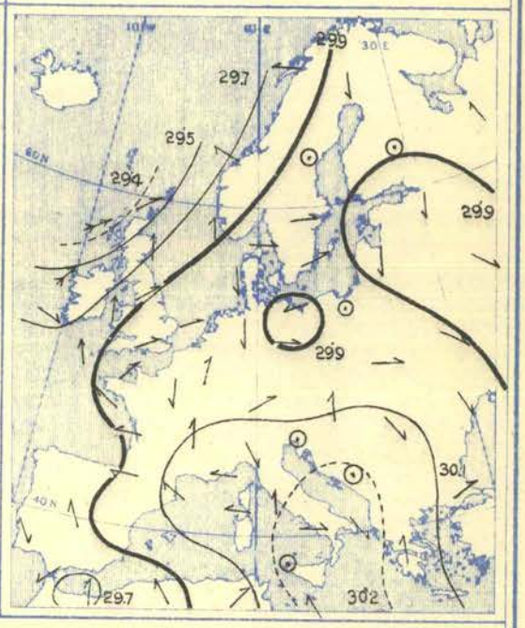


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over France and central Europe, and becoming fine over the south-east of England also; showery, however, over Ireland, Scotland, and many of the eastern parts of the North Sea. Rain falling later in the last named districts, and reported to be heavy (locally) at Valencia and the Scaw.

*Temperature* rising in Ireland, fallen over England and France. Morning readings highest, 63° at Algiers, 61° at Nemours, 49° to 44° at many of our western stations. Lowest, (1) 0° (zero.) at Haparanda, 19° at Bodö and Kuopio; (2) 33° over the north-east of England, 37° at Oxford, 39° at Belfort. Rising later to 50° or more over many parts of England, to 54° at Scilly, Jersey, and Berlin, 55° at Paris, and 68° at Biarritz.

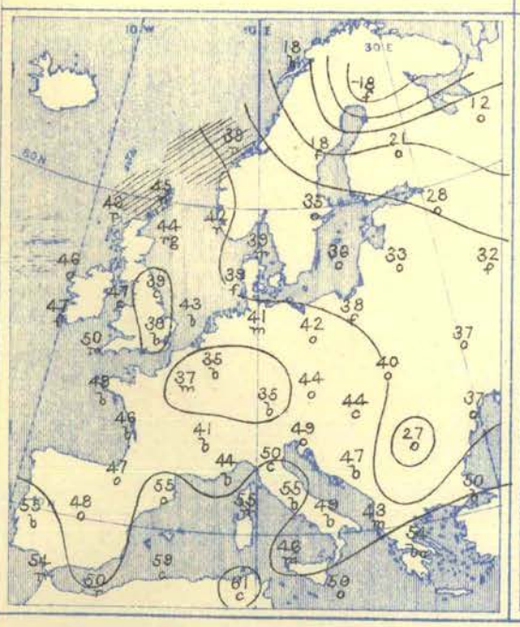
*Wind* very variable and anticyclonic over southern Europe; Southerly to Westerly over Germany, Southerly to Easterly over Norway. Light and variable from the Westward over the south of England; strong, Southerly, to a gale in the west of Ireland. Increasing to a gale from South on our north-west coasts later, but falling light and shifting to West-North-West at Valencia.

*Barometer* highest, 30·3 ins. and more over Italy, and exceeding 30·0 ins. over the southern and south-eastern parts of Europe generally. Lowest, about 29·4 ins. off our extreme north-west coasts; below 29·7 ins. in a small depression near the Helder, and below 29·8 ins. in two other small disturbances in the north-west of Russia. Rising fast over Holland later, slightly over France and England, and becoming anticyclonic in those regions.

## Friday, 17th February.

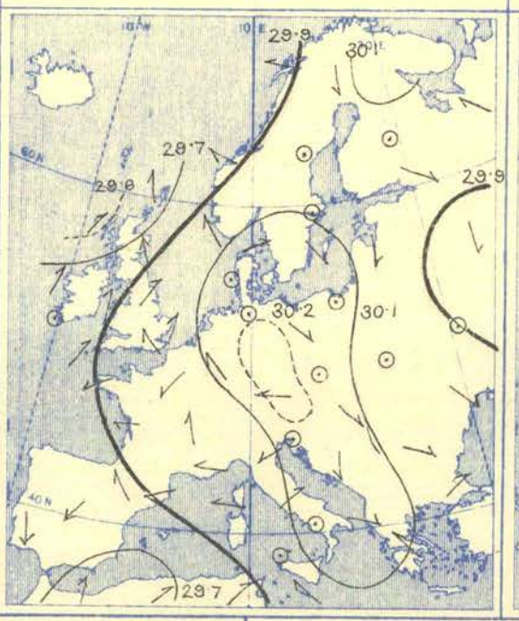
### Temperature and Weather.

8 a.m.

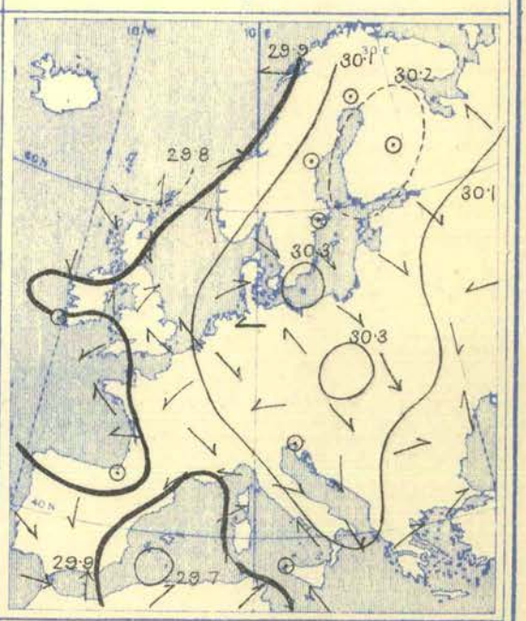


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine and bright over France and the greater part of England, but hazy or foggy in places; still rainy and squally in various parts of Ireland, Scotland, and the west of Norway. Rain falling later at the Scotch and Irish stations, and also in the west and south of Norway, but weather remaining fine over the south-east of England, and in the northern and central parts of France. A considerable amount of rain reported at Perpignan and Nemours.

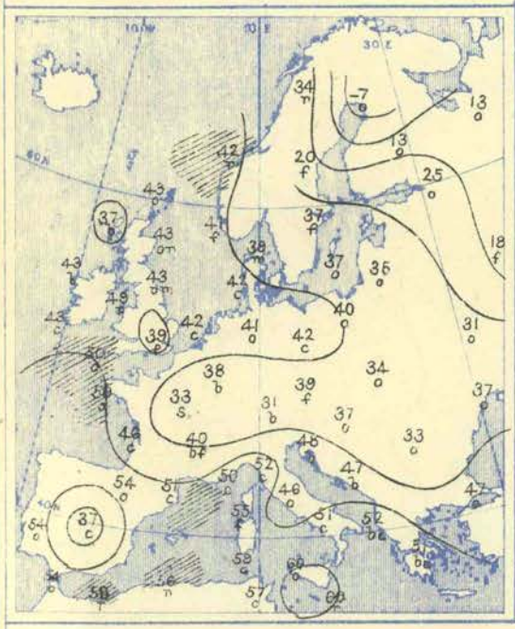
*Temperature* risen in our Islands, fallen in France. Morning readings highest, 61° at La Calle, 55° to 56° on the Portuguese coast, 50° at Scilly, and above 45° at all our western and north-western stations. Lowest, (1) −18° at Haparanda, +18° at Bodö, and 32° at Moscow; (2) 38° to 39° over the central and north-eastern parts of England, 37° at Paris, 35° at Belfort. Rising later to 54° at Nairn, Leith and Scilly, to 58° at Jersey and Cambridge, 59° at Paris, 64° at Rochefort and Cagliari, but falling over England later, and changes very irregular.

*Wind* light to moderate and mainly anticyclonic over the Continent, and South-Easterly to Southerly over our Islands, but of little strength anywhere. Shifting suddenly to the Northward in some parts of Ireland later, but very little change elsewhere.

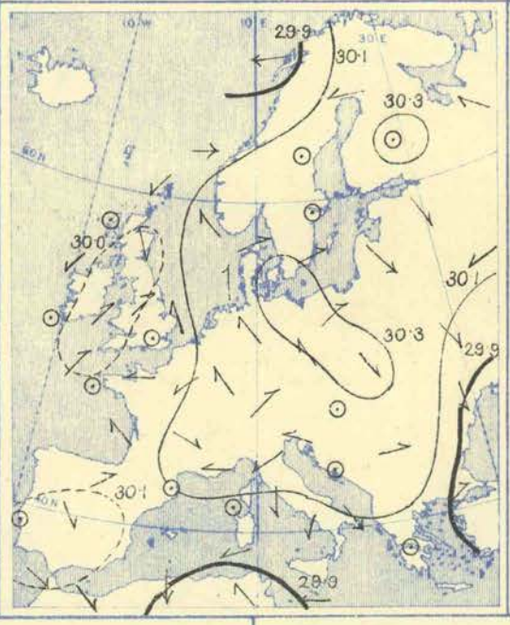
*Barometer* highest, 30·2 ins. and more in the west of Germany, and exceeding 30·0 ins. all over Italy, south-eastern and central Europe, the south-east of England, Sweden, and the east of Lapland. Lowest, 29·9 ins. and less over central Russia, 29·7 ins. to 29·6 ins. at our extreme northern and north-western stations, and about 29·5 ins. near Oran. Rising in our Islands during the day, and apparently a new anticyclone forming off the west of Ireland.

## Saturday, 18th February.

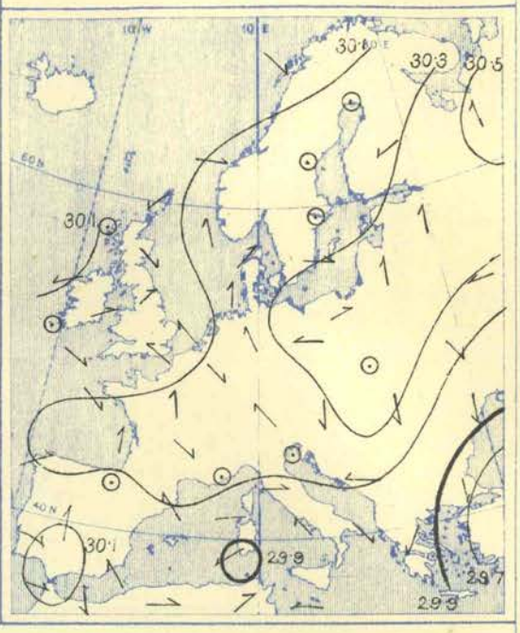
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair but dull over the greater part of the Continent, fine and bright in the Netherlands and north-east of France, foggy over England, rainy over Scotland, Ireland and the Irish Sea, as well as in the north-west of Norway. Rain falling later in all the last-named regions, and fog becoming dense in the south of London.

*Temperature* risen over England, fallen over Ireland and Scotland. Morning readings highest, 60° at Malta, 56° at Algiers; 54° at Biarritz, 50° at Brest and Scilly. Lowest, (1) −7° at Uleaborg, +13° at Archangel and Kuopio, 18° at Moscow; (2) 31° at Munich, 33° at Paris; (3) 37° at Loughborough, 39° at York, Oxford, and in London. Rising later to between 50° and 53° in the central and southern parts of our Islands to 58° at Jersey, to 60° at Paris, 61° at Rochefort, Nice and Lisbon.

*Wind* light, and exceedingly variable all over Europe, but a faint cyclonic circulation shown over our Islands; mainly South-Easterly in the west and north-west of Germany, Easterly at Bodö, Westerly at Christiansund. No decided change later.

*Barometer* highest, 30·3 ins. and more to 30·1 ins. over nearly the whole of Continental Europe. Lowest, 29·9 ins. and less over the north-west of Norway; 30·0 ins. and less over the west and north of the British Islands; 29·9 ins. and less over Algeria. No decided change later.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇉ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During this week there has been a gradual but decided change in the distribution of pressure over western Europe; between Sunday and Tuesday the barometer rose unsteadily, with the result that the depressions from the Atlantic ceased to encroach on our Islands, and the Southerly gales died down slowly. Some local disturbances, however, were developed, which caused considerable rain in places, the most important being the small depression which was formed over the north of France on Wednesday night and dispersed over the southern parts of the North Sea on Thursday.

The Continental anticyclone then spread slowly and by Friday had spread over England and Ireland. On Saturday a very shallow depression appeared over our western stations, but at the close of the week anticyclonic conditions, of a somewhat irregular kind, were again becoming general, and thick fogs were reported in many parts of our Islands.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 38.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 2·7 | ? | 4 | ? | WATERGATE (Emsworth) | 20·9 | ? | 30 | ? |
| STRATHPEFFER SPA | 11·6 | − 3·4 | 18 | − 5 | BRIGHTON | 22·7 | + 4·7 | 33 | + 6 |
| EDINBURGH | 16·1 | + 2·6 | 24 | + 4 | BOGNOR | 34·0* | ? | 49* | ? |
| MORPETH | 27·0 | ? | 40 | ? | EASTBOURNE | 25·9 | + 8·5 | 38 | +13 |
| NEWCASTLE-ON-TYNE | 19·0 | ? | 28 | ? | VENTNOR HOSPITAL | 24·0 | ? | 35 | ? |
| OSWALDKIRK (Yorkshire) | 13·2 | − 1·5 | 20 | − 2 | SOUTHPORT | 18·1 | ? | 27 | ? |
| HOLLESLEY BAY | 23·6 | ? | 35 | ? | COLWYN BAY | 20·2 | ? | 30 | ? |
| SHEFFIELD | 19·6 | ? | 29 | ? | ABERDOVEY | 17·9 | ? | 26 | ? |
| WORKSOP | 17·1 | + 2·9 | 25 | + 4 | TENBY | 18·0 | − 2·0 | 26 | − 4 |
| THURCASTON (Leicestershire) | 15·9 | + 1·8 | 23 | + 2 | NEWQUAY | 12·9 | − 6·1 | 18 | −10 |
| PLUMSTEAD COMMON | 15·1 | ? | 22 | ? | TORQUAY | 22·5* | + 5·3 | 32* | + 7 |
| MARGATE | 23·0 | + 6·5 | 33 | + 9 | GUERNSEY | 25·8* | + 4·8 | 37* | + 6 |
| WESTBOURNE (Emsworth) | 29·5* | +11·0 | 43* | +16 | | | | | |

* The values at Westbourne, Bognor, Torquay, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD, LITH., 63 CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 8.] *Third Series.* WEEK ENDING SATURDAY, FEBRUARY 25TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 44.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 57 | 19 | 48·2 | 29·7 | 39·0 | 1 above | 17 | +10 | 48 | +13 | 44 | - 8 | 298 | - 28 |
| | 1. SCOTLAND, EAST | 53 | 19 | 46·3 | 28·1 | 37·2 | 1 below | 12 | + 2 | 52 | +11 | 42 | - 22 | 338 | - 11 |
| | 2. ENGLAND, N.E. | 53 | 24 | 46·0 | 34·2 | 40·1 | 1 above | 11 | 0 | 30 | - 3 | 107 | + 48 | 211 | - 99 |
| | 3. ENGLAND, EAST | 56 | 23 | 46·5 | 33·9 | 40·7 | 2 above | 13 | - 2 | 35 | - 2 | 150 | + 79 | 176 | -179 |
| | 4. MIDLAND COUNTIES | 56 | 21 | 48·7 | 31·9 | 40·3 | 1 above | 19 | + 6 | 40 | + 3 | 153 | + 74 | 219 | -134 |
| | 5. ENGLAND SOUTH | 55 | 23 | 49·4 | 37·1 | 43·2 | 3 above | 29 | +13 | 14 | -15 | 197 | +106 | 103 | - 182 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 51 | 23 | 46·6 | 34·4 | 40·6 | 1 above | 12 | + 2 | 21 | + 3 | 84 | + 7 | 215 | - 33 |
| | 7. ENGLAND, N.W. | 56 | 28 | 48·0 | 35·8 | 41·9 | 2 above | 17 | + 6 | 26 | - 2 | 141 | + 73 | 160 | - 99 |
| | 8. ENGLAND, S.W. | 54 | 29 | 49·5 | 39·1 | 44·3 | 3 above | 28 | +10 | 8 | -15 | 204 | + 84 | 93 | -117 |
| | 9. IRELAND, NORTH | 53 | 26 | 47·5 | 35·4 | 41·5 | 1 above | 15 | + 1 | 27 | + 3 | 108 | + 5 | 195 | - 21 |
| | 10. IRELAND, SOUTH | 55 | 29 | 49·7 | 39·1 | 44·5 | 2 above | 8 | -14 | 30 | +13 | 177 | + 21 | 128 | - 29 |
| | —CHANNEL ISLANDS | 55 | 34 | 51·3 | 42·7 | 47·0 | 3 above | 35 | +12 | 0 | -10 | 331 | +161 | 29 | - 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 44.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 0 | less than ½ | 10 less | 35 | + 6 | 8·1 | - 1·4 | 40 | +25 | 58 | +35 | 97 | + 29 | 21 | + 6 |
| | 1. SCOTLAND, EAST | 1 | less than ½ | 5 less | 35 | + 4 | 5·8 | + 0·8 | 34 | +16 | 49 | +22 | 107 | + 16 | 24 | + 4 |
| | 2. ENGLAND, N.E. | 0 | less than ½ | 4 less | 33 | + 4 | 3·5 | 0·0 | 26 | +12 | 36 | +17 | 101 | + 11 | 21 | + 2 |
| | 3. ENGLAND, EAST | 0 | less than ½ | 3 less | 33 | + 3 | 3·5 | 0·0 | 42 | +23 | 58 | +31 | 170 | + 53 | 33 | +11 |
| | 4. MIDLAND COUNTIES | 0 | less than ½ | 4 less | 34 | + 5 | 6·1* | + 1·9 | 32 | +17 | 45 | +24 | 119 | + 27 | 26 | + 6 |
| | 5. ENGLAND, SOUTH | 0 | less than ½ | 4 less | 32 | + 4 | 5·4 | + 0·7 | 42 | +22 | 58 | +30 | 154 | + 45 | 31 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 1 | 1 | 8 less | 37 | + 1 | 9·2 | - 0·2 | 19 | + 3 | 28 | + 5 | 86 | + 2 | 19 | + 1 |
| | 7. ENGLAND, N.W. | 1 | 1 | 4 less | 36 | + 4 | 7·0 | + 1·8 | 32 | +14 | 45 | +18 | 113 | + 20 | 24 | + 5 |
| | 8. ENGLAND, S.W. | 1 | 2 | 6 less | 35 | + 2 | 11·2 | + 4·5 | 28 | + 7 | 38 | + 8 | 126 | + 7 | 25 | 0 |
| | 9. IRELAND, NORTH | 2 | 2 | 4 less | 41 | + 4 | 6·5 | + 0·4 | 19 | + 2 | 27 | + 3 | 110 | + 13 | 23 | + 2 |
| | 10. IRELAND, SOUTH | 2 | 2 | 5 less | 39 | + 4 | 10·4 | + 3·5 | 17 | - 2 | 23 | - 4 | 114 | - 1 | 24 | 0 |
| | — CHANNEL ISLANDS | 1 | 2 | 4 less | 35 | - 1 | 7·4 | + 1·6 | 27 | + 7 | 37 | + 9 | 132 | + 4 | 28 | + 1 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was very dry and fine as a whole, but some considerable falls of rain were experienced at some western stations on Monday, and a good deal of mist or fog prevailed in many parts of Great Britain later in the week, mostly in the morning hours.

*Temperature* was below the mean in Scotland E., but rather above in all other districts. The highest of the maxima were registered either on the 23rd or 24th, and ranged from 57° in Scotland N., 56° in England E., the Midland Counties, and England N.W. to 51° in Scotland W. The lowest of the minima occurred on rather irregular dates in Scotland and Ireland, but towards the end of the week over England ; they ranged from 19° in Scotland N. and E. and 21° in the Midland Counties to 29° in Ireland S. and to 34° in the Channel Islands. The diurnal range was large generally.

*Rainfall* was much less than the mean, the fall at many stations being hardly appreciable, and at others rain was entirely absent.

*Bright Sunshine* was much in excess of the mean in all districts except Ireland S. The percentage of the possible duration ranged from 58 in England E. and S., and in Scotland N., and from 49 in Scotland E. to 28 in Scotland W., 27 in Ireland N., and 23 in Ireland S.

*Barometer and Wind.*—At the commencement of the week the barometer over our Islands was very uniform, and the winds light and variable. By Monday morning, however, the centre of a well defined anticyclone lay over Scotland, and moderate or fresh Easterly and North-Easterly winds had set in in nearly all parts of the Kingdom. This system continued to affect us throughout the period, at first moving slowly eastward and afterwards south-eastwards to Denmark and north Germany. The winds in our Islands consequently became Southerly or South-Westerly in the extreme north and north-west, remained light from the Eastward in the south, and shifted to the South-Eastward or Southward in the west.

*This value has been altered owing to the receipt of further information for a preceding week.

207 | 90 Wy. & S., Ltd.
613 | 70 2 | 99.

# II.—DATA from which the SUMMARY on page 43 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Rainfall. Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head Ⓢ | 47 | 35 | 44·9 | 36·0 | 40·5 | + 2·5 | 8 | 23 | 1 | 0·01 | − 0·72 | * | * | * | * |
| | Stornoway | 51 | 27 | 48·7 | 33·4 | 41·1 | + 2·2 | 19 | 35 | 0 | — | − 0·91 | 34·4 | +17·4 | 51 | +25 |
| | Wick | 51 | 26 | 48·0 | 30·3 | 39·2 | + 1·2 | 17 | 46 | 0 | — | − 0·55 | * | * | * | * |
| | Lairg Ⓢ | 57 | 19 | 51·2 | 22·9 | 37·1 | + 0·4 | 26 | 74 | 0 | — | − 0·72 | * | * | * | * |
| | Glencarron Ⓢ | 52 | 25 | 48·4 | 28·6 | 38·5 | + 1·5 | 18 | 51 | 1 | 0·03 | − 1·49 | * | * | * | * |
| | Fort Augustus Ⓢ | 53 | 21 | ?48·5 | 25·4 | 37·0 | − 1·7 | 18 | 63 | 1 | 0·02 | − 0·86 | 39·1 | +27·9 | 57 | +41 |
| | Fort William Ⓢ | 50 | 26 | 47·4 | 31·1 | 39·3 | − 0·2 | 15 | 42 | 0 | — | − 1·82 | 39·2 | +24·0 | 57 | +35 |
| 1. SCOTLAND E. | Nairn | 52 | 22 | 47·0 | 24·7 | 35·9 | − 2·5 | 14 | 64 | 0 | — | − 0·46 | * | * | * | * |
| | Aberdeen | 50 | 27 | 44·6 | 31·4 | 38·0 | − 0·3 | 7 | 39 | 0 | — | − 0·53 | 28·9 | + 8·9 | 42 | +13 |
| | Braemar Ⓢ | 52 | 19 | 46·1 | 23·6 | 34·9 | 0·0 | 11 | 68 | 0 | — | − 0·70 | 45·7† | +26·5† | 66† | +37† |
| | Ochtertyre Ⓢ | 52 | 25 | 46·1 | 27·6 | 36·9 | − 0·8 | 11 | 54 | 2 | 0·02 | − 0·72 | * | * | * | * |
| | Leith | 49 | 25 | 45·9 | 30·0 | 38·0 | − 1·9 | 11 | 45 | 0 | — | − 0·31 | * | * | * | * |
| | Marchmont Ⓢ | 53 | 27 | 47·9 | 31·3 | 39·6 | + 2·1 | 17 | 42 | 1 | 0·01 | − 0·52 | 36·3 | +18·1 | 52 | +25 |
| 2. ENGLAND, N.E. | Alnwick Castle | 49 | 24 | 46·8 | 32·7 | 39·8 | + 1·3 | 13 | 36 | 1 | 0·03 | − 0·46 | * | * | * | * |
| | Durham | 49 | 26 | 45·7 | 31·6 | 38·7 | + 0·7 | 10 | 39 | 1 | 0·02 | − 0·37 | 27·9 | +10·0 | 40 | +14 |
| | Shields | 49 | 32 | 45·1 | 35·4 | 40·3 | + 1·1 | 9 | 26 | 0 | — | − 0·33 | * | * | * | * |
| | Scarborough Ⓜ | 51 | 30 | 46·7 | 34·6 | 40·7 | + 1·5 | 13 | 30 | 0 | — | − 0·39 | 30·6 | ? | 43 | ? |
| | York | 53 | 27 | 47·7 | 32·6 | 40·2 | + 1·0 | 16 | 37 | 0 | — | − 0·36 | 28·7 | +12·4 | 40 | +17 |
| | Spurn Head | 46 | 35 | 44·0 | 38·1 | 41·1 | + 2·1 | 6 | 15 | 0 | — | − 0·28 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 52 | 26 | 47·9 | 32·3 | 40·1 | + 1·9 | 17 | 38 | 0 | 0·04 | − 0·35 | 40·9 | +20·8 | 57 | +30 |
| | Yarmouth | 47 | 35 | 43·9 | 37·6 | 40·8 | + 2·6 | 5 | 17 | 1 | 0·01 | − 0·36 | * | * | * | * |
| | Geldeston | 50 | 24 | 46·5 | 32·9 | 39·7 | + 0·7 | 13 | 35 | 0 | 0·03 | − 0·29 | 41·7 | +21·9 | 58 | +30 |
| | Cambridge | 56 | 23 | 52·7 | 30·4 | 41·6 | + 2·4 | 30 | 48 | 0 | — | − 0·30 | 41·7 | +22·8 | 58 | +31 |
| | Felixstowe | 50 | 29 | 45·4 | 37·9 | 41·7 | + 1·9 | 10 | 17 | 0 | — | ? | 42·1 | ? | 58 | ? |
| | Rothamsted | 53 | 24 | 48·7 | 32·1 | 40·4 | + 1·7 | 19 | 39 | 0 | 0·02 | − 0·39 | 41·7 | +23·4 | 58 | +31 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 53 | 21 | 49·0 | 28·3 | 38·7 | − 0·3 | 20 | 53 | 0 | — | − 0·30 | * | * | * | * |
| | Loughborough | 56 | 23 | 50·1 | 30·1 | 40·1 | + 0·6 | 23 | 47 | 1 | 0·02 | − 0·33 | * | * | * | * |
| | Stamford (Duddington) | 51 | 24 | 48·6 | 31·7 | 40·2 | + 1·1 | 18 | 41 | 1 | 0·04 | − 0·28 | * | * | * | * |
| | Cheadle Ⓜ | 52 | 30 | 47·1 | 33·9 | 40·5 | + 2·5 | 14 | 32 | 0 | — | − 0·50 | * | * | * | * |
| | Shirley (near Solihull) | 53 | 25 | 48·7 | 32·4 | 40·6 | + 1·1 | 19 | 39 | 0 | — | ? | * | * | * | * |
| | Churchstoke Ⓜ | 53 | 24 | 47·2 | 31·5 | 39·4 | + 0·4 | 15 | 41 | 1 | 0·05 | − 0·45 | 35·7 | +17·8 | 50 | +25 |
| | Hereford Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 51 | 26 | 48·3 | 33·1 | 40·7 | + 1·9 | 18 | 36 | 0 | — | − 0·49 | 37·2 | +17·5 | 52 | +24 |
| | Oxford | 53 | 27 | 50·4 | 33·9 | 42·2 | + 2·2 | 35 | 23 | 0 | — | − 0·39 | 42·7 | +24·7 | 59 | +34 |
| 5. ENGLAND, S. | London | 55 | 29 | 50·1 | 34·9 | 42·5 | + 1·9 | 33 | 20 | 1 | 0·01 | − 0·32 | 26·5† | +15·7† | 37† | +22† |
| | Cranley Ⓜ | 55 | 23 | 50·3 | 33·4 | 41·9 | + 1·5 | 23 | 36 | 1 | 0·02 | ? | * | * | * | * |
| | Dungeness | 52 | 33 | 48·0 | 39·0 | 43·5 | + 3·7 | 23 | 8 | 0 | — | − 0·35 | * | * | * | * |
| | Hastings (St. Leonards) | 50 | 34 | 47·1 | 38·3 | 42·7 | + 2·7 | 20 | 10 | 0 | 0·01 | − 0·43 | 42·4 | +20·2 | 59 | +28 |
| | Southampton | 54 | 31 | 51·8 | 36·4 | 44·1 | + 2·9 | 38 | 16 | 0 | — | − 0·50 | 43·1 | +22·6 | 60 | +31 |
| | Hurst Castle | 53 | 37 | 50·1 | 40·9 | 45·5 | + 4·5 | 29 | 3 | 0 | — | − 0·42 | * | * | * | * |
| | Shaftesbury Ⓜ | 51 | 32 | 48·4 | 36·5 | 42·5 | + 3·2 | 27 | 15 | 0 | — | − 0·59 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 50 | 29 | 47·5 | 36·5 | 42·0 | + 1·9 | 15 | 15 | 0 | — | − 1·51 | * | * | * | * |
| | Glasgow | 49 | 30 | 44·4 | 34·6 | 39·5 | + 0·4 | 7 | 28 | 0 | 0·01 | − 0·69 | 11·4 | − 0·8 | 16 | − 2 |
| | Ardrossan | 51 | 32 | 47·4 | 34·3 | 40·9 | + 0·6 | 15 | 31 | 0 | — | − 0·58 | * | * | * | * |
| | Glenlee Ⓢ | 51 | 23 | 47·0 | 29·4 | 38·2 | − 0·6 | 14 | 48 | 0 | — | − 0·99 | * | * | * | * |
| | Douglas (Isle of Man) | 51 | 33 | 46·9 | 37·4 | 42·2 | + 1·5 | 21 | 13 | 1 | 0·34 | − 0·33 | 27·4 | + 8·2 | 39 | +12 |
| 7. ENGLAND, N.W. | Stonyhurst | 50 | 30 | 45·9 | 34·8 | 40·4 | + 1·6 | 11 | 28 | 0 | — | − 0·77 | 27·6 | +11·4 | 39 | +16 |
| | Blackpool Ⓜ | 51 | 31 | 48·1 | 34·2 | 41·2 | + 2·0 | 17 | 32 | 1 | 0·06 | − 0·38 | 28·9 | +12·2 | 41 | +17 |
| | Manchester (Prestwich) | 53 | 28 | 48·4 | 34·0 | 41·2 | + 2·4 | 18 | 32 | 0 | — | − 0·48 | 26·1 | ? | 37 | ? |
| | Liverpool Obsy. (Bidston) | 48 | 30 | 46·1 | 35·6 | 40·9 | + 0·1 | 11 | 26 | 1 | 0·02 | − 0·33 | 29·4 | ? | 41 | ? |
| | Llandudno Ⓜ | 56 | 33 | 50·1 | 37·6 | 43·9 | + 2·1 | 32 | 12 | 1 | 0·10 | − 0·32 | 35·3 | +16·7 | 49 | +22 |
| | Holyhead | 54 | 35 | 49·4 | 38·3 | 43·9 | + 2·1 | 29 | 10 | 1 | 0·51 | − 0·01 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 54 | 29 | 50·3 | 35·3 | 42·8 | + 2·8 | 34 | 19 | 2 | 0·21 | − 0·66 | * | * | * | * |
| | Pembroke | 48 | 40 | 47·0 | 41·0 | 44·0 | + 1·8 | 18 | 3 | 2 | 0·85 | + 0·29 | 29·9 | + 8·4 | 42 | +12 |
| | Clifton | 53 | 30 | 50·0 | 36·4 | 43·2 | + 2·2 | 32 | 16 | 0 | — | − 0·52 | * | * | * | * |
| | Arlington (N. Devon) | 52 | 33 | 49·1 | 36·4 | 42·8 | + 1·8 | 16 | 29 | 1 | 0·06 | − 0·92 | * | * | * | * |
| | Cullompton Ⓜ | 53 | 29 | 51·2 | 36·6 | 43·9 | + 2·2 | 36 | 15 | 1 | 0·01 | − 0·72 | 22·1 | + 3·1 | 31 | + 3 |
| | Falmouth | 51 | 41 | 49·7 | 43·9 | 46·8 | + 3·1 | 34 | 0 | 1 | 0·10 | − 0·85 | 29·8 | + 7·7 | 41 | +10 |
| | Plymouth | 51 | 38 | 49·0 | 42·0 | 45·5 | + 3·1 | 25 | 0 | 1 | 0·03 | − 0·57 | 21·3 | − 0·2 | 29 | − 1 |
| | Prawle Point | 52 | 39 | 49·6 | 41·3 | 45·5 | + 3·7 | 27 | 2 | 1 | 0·02 | − 0·41 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 51 | 35 | 47·0 | 37·3 | 42·2 | + 0·3 | 21 | 13 | 1 | 0·03 | ? | * | * | * | * |
| | Londonderry | 53 | 30 | 46·0 | 33·2 | 39·6 | − 1·4 | 11 | 34 | 1 | 0·10 | − 0·45 | * | * | * | * |
| | Edenfel (Omagh) | 50 | 27 | 46·6 | 33·4 | 40·0 | + 0·9 | 13 | 33 | 1 | 0·36 | − 0·16 | * | * | * | * |
| | Belmullet | 52 | 33 | 49·9 | 38·4 | 44·2 | + 1·2 | 31 | 10 | 4 | 0·05 | − 0·92 | * | * | * | * |
| | Markree Castle | 52 | 26 | 48·4 | 34·9 | 41·7 | + 1·5 | 18 | 30 | 1 | 0·07 | − 0·60 | 14·7 | − 2·4 | 21 | − 4 |
| | Armagh | 48 | 27 | 47·2 | 34·1 | 40·7 | + 0·7 | 15 | 32 | 1 | 0·34 | − 0·24 | 22·7 | + 6·0 | 32 | + 8 |
| | Donaghadee | 50 | 32 | 47·3 | 36·3 | 41·8 | + 0·9 | 15 | 24 | 2 | 0·66 | + 0·18 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 51 | 37 | 48·8 | 38·9 | 43·9 | + 1·9 | 26 | 9 | 2 | 0·50 | + 0·04 | 26·7 | + 7·7 | 37 | +10 |
| | Parsonstown | 54 | 30 | 49·0 | 34·6 | 41·8 | + 0·8 | 20 | 31 | 1 | 0·04 | − 0·45 | 10·0 | − 8·0 | 14 | −12 |
| | Kilkenny | 50 | 29 | 47·7 | 36·9 | 42·3 | + 0·3 | 24 | 14 | 2 | 0·43 | − 0·12 | * | * | * | * |
| | Roche's Point | 50 | 38 | 49·3 | 42·6 | 46·0 | + 2·2 | 28 | 0 | 3 | 0·07 | − 0·86 | * | * | * | * |
| | Valencia | 53 | 36 | 51·6 | 42·7 | 47·2 | + 2·4 | 36 | 0 | 2 | 0·24 | − 0·91 | 13·9 | − 5·8 | 19 | − 9 |
| | Killarney | 54 | 31 | 51·3 | 39·7 | 45·5 | + 1·7 | 34 | 6 | 1 | 0·02 | ? | * | * | * | * |
| | Foynes | 55 | 34 | 50·5 | 38·4 | 44·5 | + 2·4 | 33 | 10 | 1 | 0·04 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 53 | 45 | 51·6 | 45·9 | 48·8 | + 3·0 | 48 | 0 | 1 | 0·31 | − 0·29 | 16·8 | ? | 23 | ? |
| | Jersey | 55 | 34 | 50·9 | 39·4 | 45·2 | + 2·1 | 33 | 7 | 0 | — | − 0·54 | 33·8 | + 9·0 | 46 | +11 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

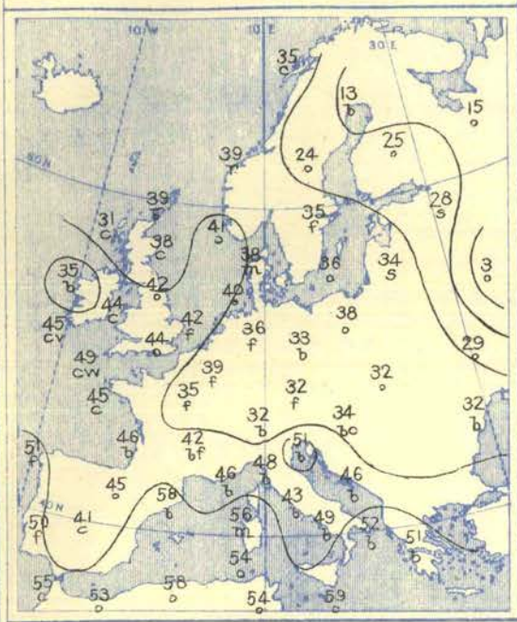
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

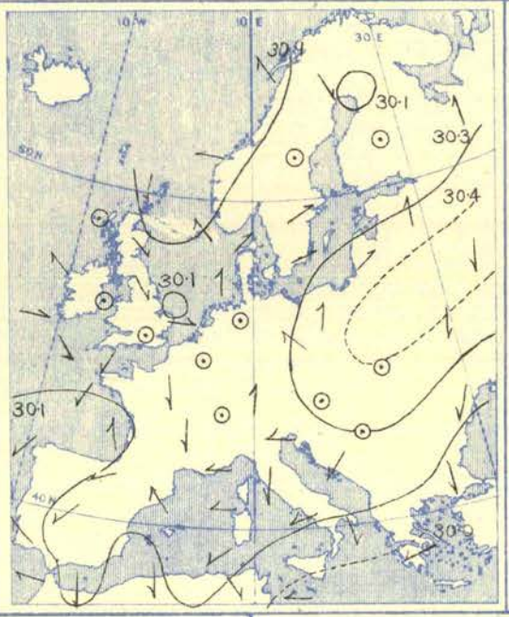
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 19th February.

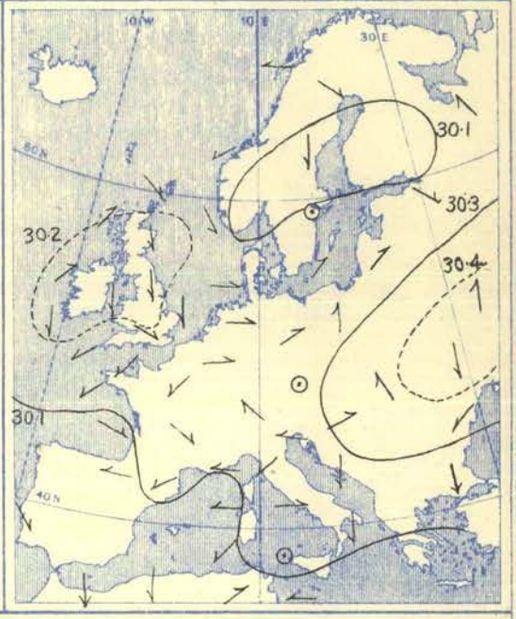
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning foggy or misty over England, as well as in many parts of the Continent. Fine in Ireland and Scotland, and also over Germany, Austria, Italy, and the south of France; cloudy or dull over Scandinavia, Denmark and Russia, with rain at Christiansund and snow at St. Petersburg and Riga. Rain falling later on our extreme south-west coasts, and a considerable quantity at Lisbon; snow reported at Hernösand and Hangö.

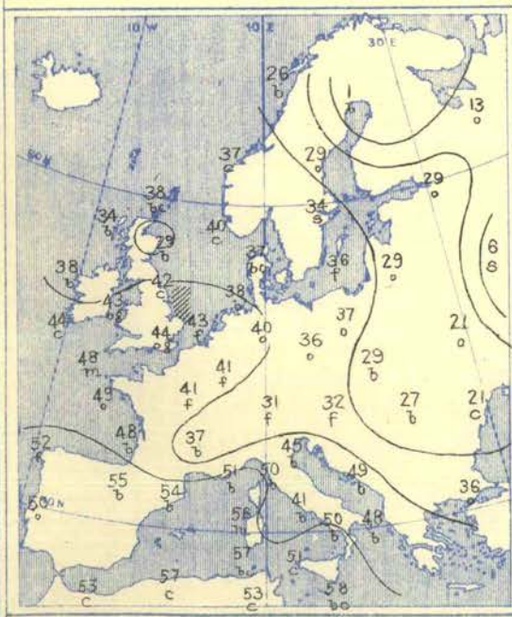
*Temperature* fallen in most places, but risen a little over the central parts of England and France, and more decidedly over the northern parts of Sweden and Russia. Morning readings highest, 59° at Malta, 58° at Barcelona and Algiers, and 56° at Sanguinaire; above 50° at most of the Mediterranean and Spanish coast stations. Lowest, 3° at Moscow, 13° at Haparanda, and 15° at Archangel; below the freezing point in most parts of Sweden and Russia, as well as at some of the German stations, and at Stornoway. Rising during day to 50° or slightly above it in several parts of the United Kingdom; exceeding 60° over the west of France and southern Europe generally, and reaching 73° at Bilbao.

*Wind* light from the Westward or North-Westward over the greater part of our Islands, but Northerly over the English Channel and the north of France. Light from between South and East over Norway, Denmark and Germany, and from South-West over Sweden and the Baltic. Calm in Austria: Easterly or North-Easterly over the greater part of southern Europe. North-Easterly breezes setting in later over England; no decided change occurring elsewhere.

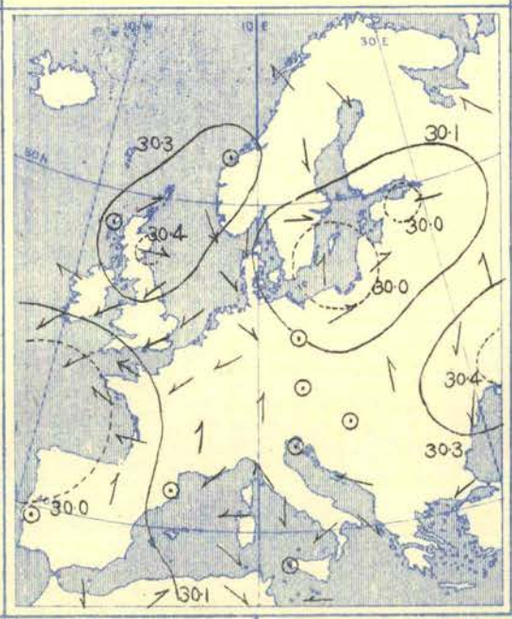
*Barometer* highest, 30·4 ins, and upwards over central Russia; 30·2 ins. and upwards in an anticyclone extending from Russia over the whole of central Europe. Lowest, 30·0 ins. and less in a large area lying over the eastern and central parts of the Mediterranean. Barometer rising over western Europe during day, and new anticyclone forming over the United Kingdom.

## Monday, 20th February.

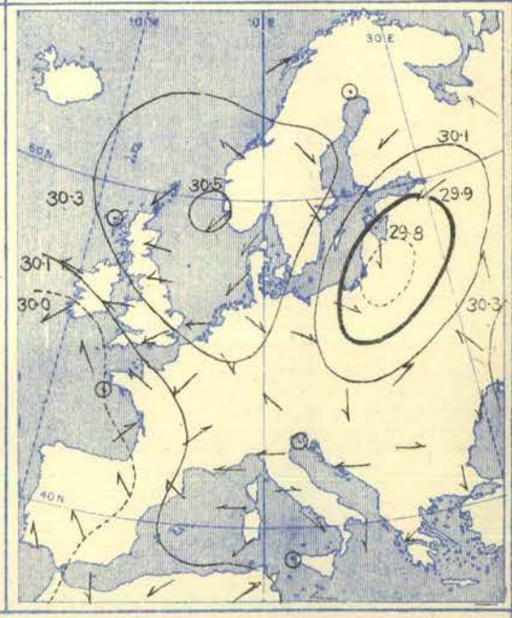
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine in Scotland and the north of Ireland, as well as in most parts of southern and south-eastern Europe. Cloudy or dull elsewhere, with fog or mist on many parts of our own western and southern coasts, and rain at the mouth of the St. George's Channel. Rain falling also at Karlstad, and snow at Stockholm, Hangö, and Moscow. Rain falling later in many parts of Ireland and England; heavily over the Irish Sea and St. George's Channel.

*Temperature* changed little and irregularly. Morning readings highest, 59° at Bilbao, 58° at Malta, and 57° at Cagliari and Algiers; above 50° at most of the Mediterranean and Spanish coast stations. Lowest, 1° at Haparanda, 6° at Moscow and Kharkov, and 13° at Archangel; below the freezing point over Sweden, Russia, and Austria generally, and also in Scotland. Rising during day to 45° and upwards in many parts of the United Kingdom, and to 53° at Scilly; exceeding 60° over the west of France and the greater part of southern Europe, and reaching 68° at Biarritz and Palermo.

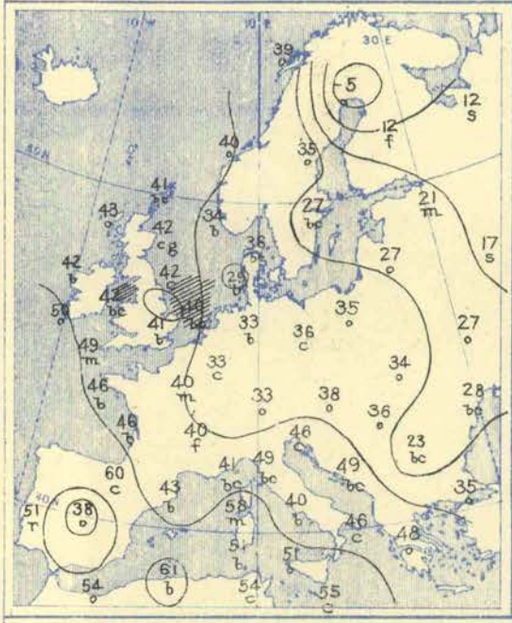
*Wind* light to fresh from the Eastward over the greater part of our Islands, the Netherlands and the north of France, but calm in the north of Scotland. Northerly or North-Westerly over Sweden, Denmark, north Germany, and the south of Norway; calm in Austria and south Germany; variable in Russia. Chiefly Northerly in Italy; calm or light from the Southward over the southern parts of France. No important change occurring later.

*Barometer* highest, 30·4 ins. and upwards in the central parts of an anticyclone, lying over the east of Scotland, and also in another system over the south of Russia. Lowest 30·0 ins. and less in a large depression lying over the Bay of Biscay and the north-west of Spain, and also in a smaller disturbance over the northern parts of the Baltic. Depression over Bay of Biscay subsequently spreading northwards; Baltic disturbance moving south-eastwards over Russia and becoming deeper.

## Tuesday, 21st February.

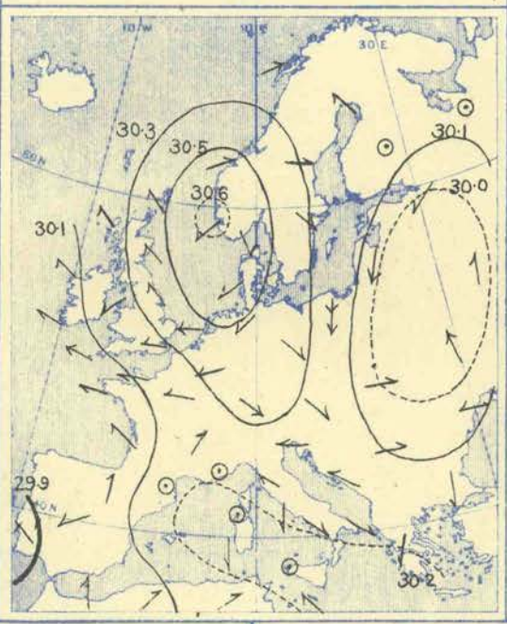
### Temperature and Weather.

8 a.m.

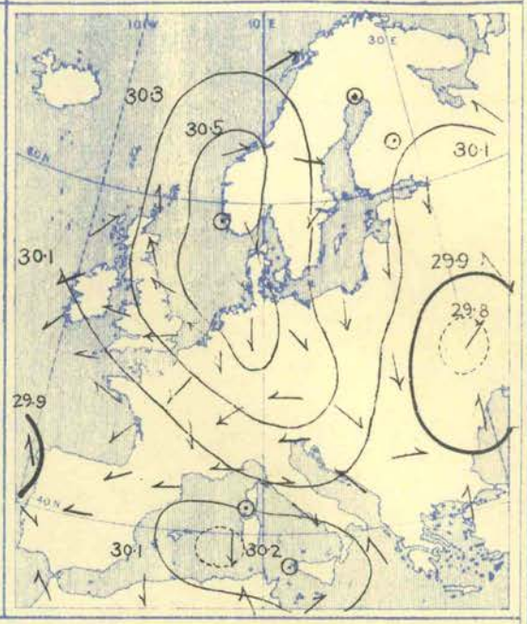


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair or fine over western and northern Europe generally, but cloudy and misty over Ireland, Scotland, and the English Channel, and rainy at Parsonstown. Dull over the Spanish Peninsula, with rain at Lisbon, cloudy or dull also in most parts of Germany, Austria, and Russia, with snow at Archangel and Moscow. No important change occurring over western Europe later, but rain falling over the Spanish Peninsula—heavily at Lisbon.

*Temperature* risen in Ireland, Scotland, and the west of Norway; fallen elsewhere. Morning readings highest, 61° at Algiers, 60° at Biarritz, and 58° at Sanguinaire; touching 50° at Valencia (Ireland). Lowest, −5° Fahr. at Haparanda, +6° at Kharkov, and 12° at Archangel and Kuopio; below the freezing point over Sweden, Denmark, and Russia generally, and below 40° over central England. Rising during day to 45° and upwards in most parts of the United Kingdom, and to 50° and upwards at some of our western stations. Exceeding 60° in several parts of southern Europe, and reaching 68° at Biarritz.

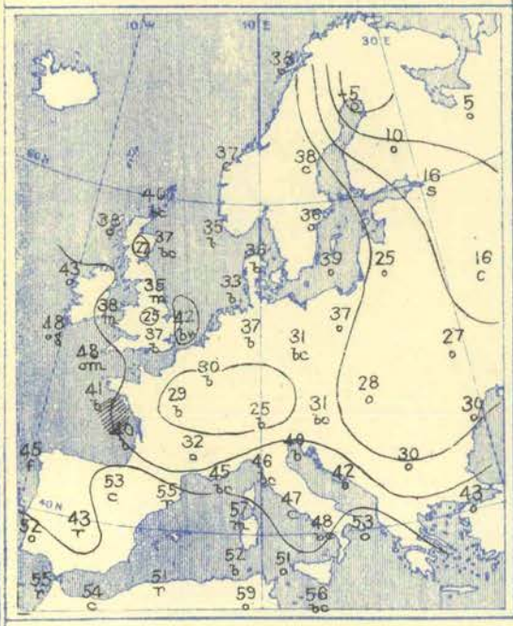
*Wind* Easterly or South-Easterly over the greater part of our Islands, France, the Netherlands, and the Spanish Peninsula, and strong in force on many of the English and Irish coasts. Westerly over the northern parts of Scandinavia; Northerly over Denmark, north Germany, the Baltic, and the south of Scandinavia, with a gale at Neufahrwasser; North-Westerly over south Germany and Austria; Southerly over the central and southern parts of Russia. Calm or variable over the south of France and northern Italy; North-Westerly over southern Italy. No important change occurring later.

*Barometer* highest, 30·63 ins. at Skudesnaes; 30·2 ins. and upwards in an anticyclone embracing nearly the whole of northern and central Europe and Great Britain, and also in another system over the Mediterranean. Lowest, 29·9 ins. and less in a depression off the Portuguese coasts; 30·0 ins. and less in a large shallow area over western and central Russia. No important change occurring over western Europe during day, but low-pressure system over Russia moving southwards.

## Wednesday, 22nd February.

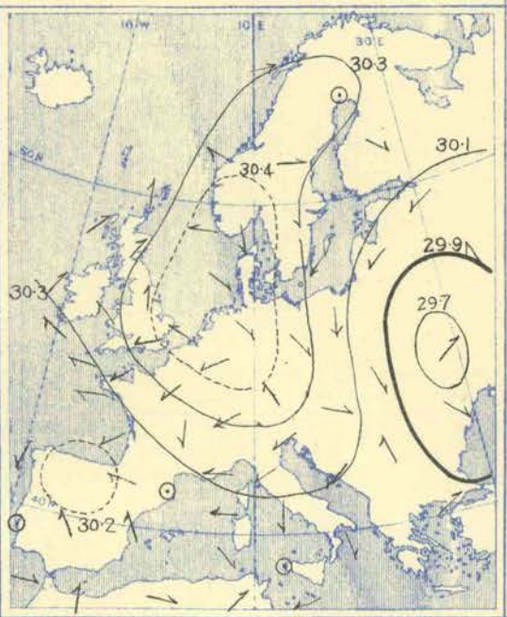
### Temperature and Weather.

8 a.m.

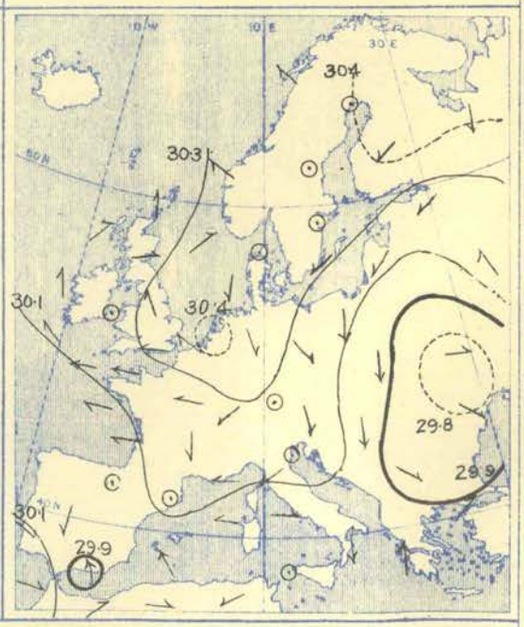


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over Europe as a whole, but dull and misty on our own south-west coasts. Cloudy or dull in Sweden and Russia, with snow at St. Petersburg and also at Cracow, rain falling at many of the Spanish stations. No decided change occurring over western Europe later, but heavy rain falling at Lisbon and a smaller quantity at Perpignan, as well as at Hernösand. Snow occurring in many parts of Russia.

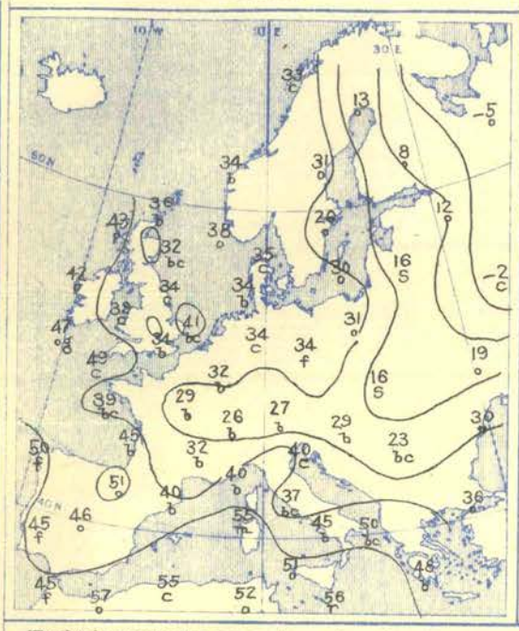
*Temperature* fallen in most of the western and central countries. Morning readings highest, 59° at La Calle, 57° at Sanguinaire, and 56° at Oporto and Malta; above 50° at the Mediterranean and Spanish coast stations generally. Lowest, −5° Fahr. at Uleaborg, +4° at Haparanda, 5° at Archangel, and 16° at St. Petersburg and Moscow; below the freezing point over central Europe generally, as well as in many parts of Great Britain. Rising during day to 50° and upwards in several parts of the United Kingdom, and to 56° at Cambridge; exceeding 60° in many parts of France and southern Europe and reaching 68° at Palermo.

*Wind* light to fresh from the Eastward over England, France and the Netherlands; Southerly (South-East to South-West) in Ireland and Scotland; Northerly over Finland, the Baltic, Denmark, north Germany, and the south of Sweden; North-Westerly over eastern and central Germany and Austria; chiefly Southerly or South-Easterly over the central and southern parts of Russia. Northerly or North-Easterly in Italy; Southerly in Algeria. No important change occurring during day.

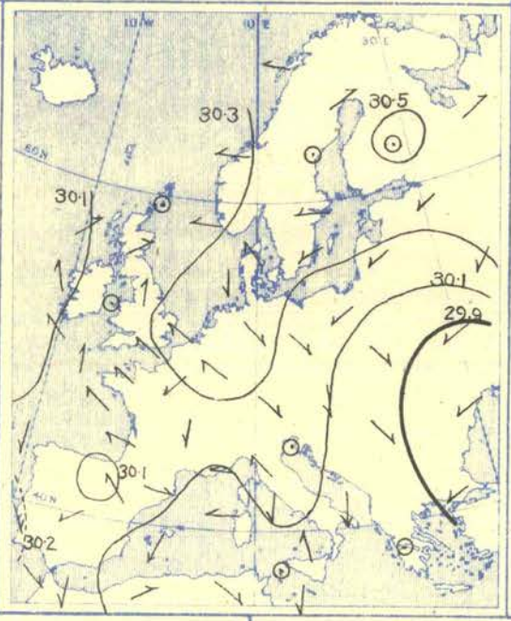
*Barometer* highest, 30·4 ins. and upwards over the North Sea, the south of Norway, Denmark, the Netherlands, and the east of England; 30·1 ins. and upwards in an anticyclone embracing nearly the whole of western and northern Europe. Lowest, 29·7 ins. and less in a depression over the south of Russia; 30·0 ins. and less in another disturbance over the north of Spain and the southern parts of the Bay of Biscay. Anticyclone giving way slowly during day; Russian depression moving slowly southwards.

## Thursday, 23rd February.

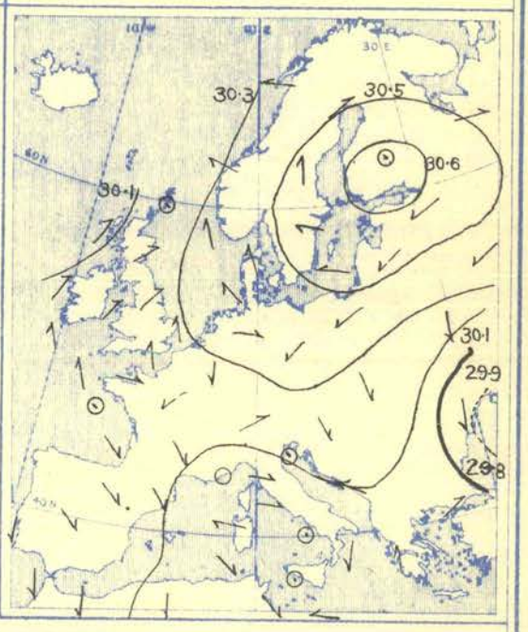
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over western and southern Europe generally, but with fog or mist in many parts of Great Britain and also over the Netherlands and the Spanish Peninsula. Dull in the south of Ireland, as well as in Sweden, Russia, and Germany; rain falling at Breslau, and snow at several of the Russian stations.[1] No important change occurring later, but snow reported in some parts of Austria, and rain in Algeria. Lunar halos seen over the south of England.

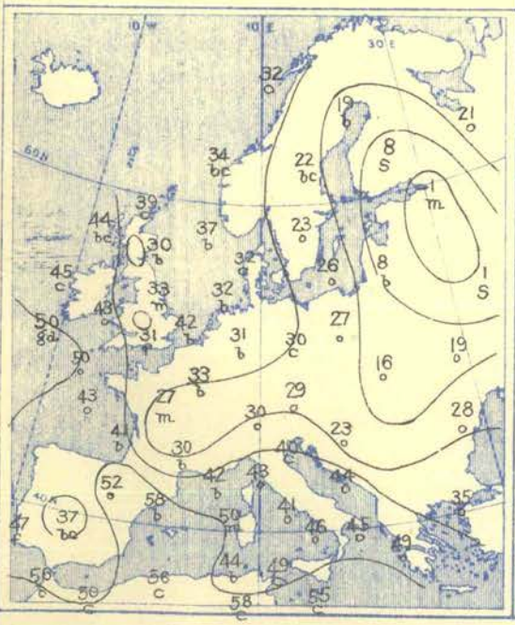
*Temperature* fallen generally, but risen in several parts of Germany, France, and Spain. Morning readings highest, 58° at Alicante, and 56° at Barcelona, Palma, and Malta; above 50° at several of the Mediterranean stations. Lowest, −5° Fahr. at Archangel, −2° at Moscow, +12° at St. Petersburg, and 13° at Haparanda; below the freezing point in most parts of northern, eastern, and central Europe, as well as in many parts of Great Britain. Rising during day to 50° and upwards at several of our own stations, and to 56° at Cambridge; exceeding 60° in the west and south of France, and also over the Spanish Peninsula, and reaching 66° at Cape Béarn and Croisette.

*Wind* light from the Eastward over England, France, and Belgium, from the South-Eastward in Ireland, and from the South-Westward in Scotland. Easterly or North-Easterly over the greater part of Russia, Scandinavia, and the Baltic; variable in Denmark; Northerly or North-Westerly in Germany and Austria. Variable in Italy; Northerly and North-Easterly to North-Westerly over the Spanish Peninsula. Subsequently veering to the South-Eastward over England; shifting to the Northward or North-Westward in France.

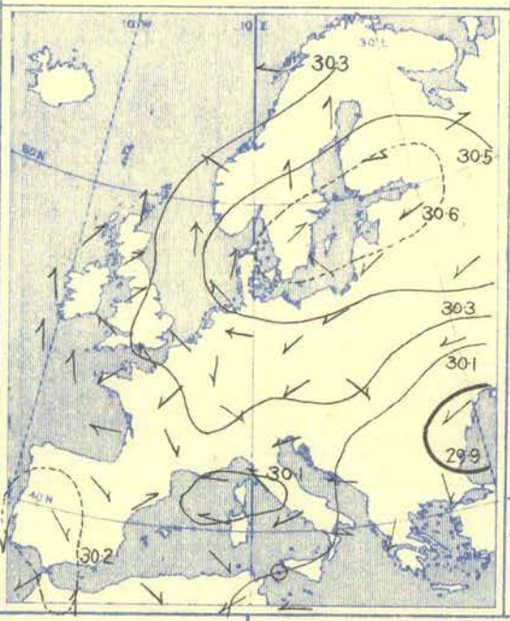
*Barometer* highest, 30·4 ins. to 30·5 ins. and upwards over Sweden and northern Russia; 30·2 ins. and upwards in an anticyclone covering the greater part of northern and north-western Europe, and also in another system lying off the Portuguese coasts. Lowest, 29·9 ins. and less in a depression lying over Asia Minor, the Black Sea, and the south of Russia; 30·1 ins. and less in a shallow disturbance over the north-east of Spain, and also in a large area lying to the westward of our Islands. No important change occurring during day, but depression over south-eastern Europe moving southwards.

## Friday, 24th February.

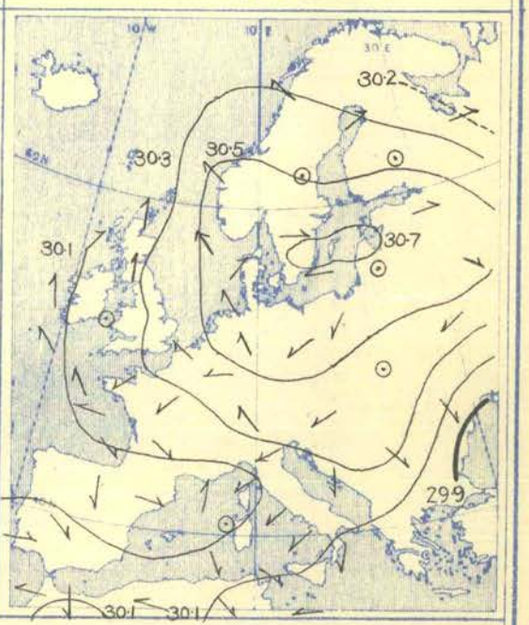
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over western Europe generally, but with fog or mist in many parts of Great Britain; dull over Wales and the south of Ireland, with slight rain at Valencia. Dull over Sweden, Russia, Germany, Austria, and southern Italy, with snow at Kuopio, Helsingfors, Moscow, Kharkov, and Vienna; fine over northern Italy. No important change occurring over western Europe during day, but slight rain falling in Italy.

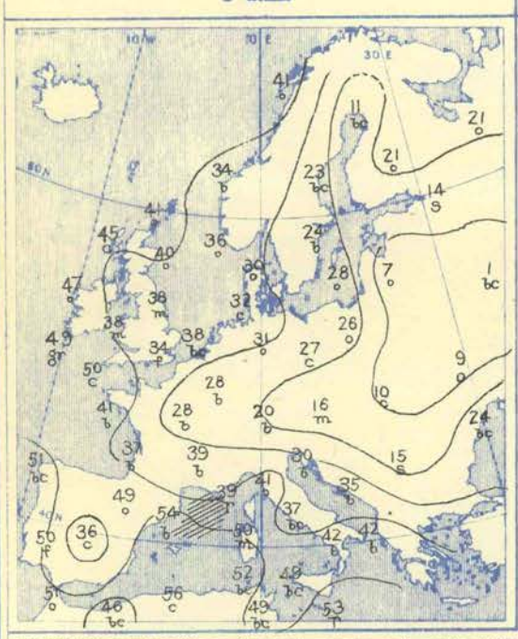
*Temperature* fallen over Europe as a whole, but risen a little in the west of our Islands. Morning readings highest, 58° at Barcelona and La Calle, 56° at Algiers, and 55° at Malta; touching 50° at Valencia (Ireland) and Scilly. Lowest, −1° Fahr. at St. Petersburg, +1° at Moscow, and 8° at Kuopio; below the freezing point over northern, eastern, and central Europe generally, and also in many parts of Great Britain. Rising during day to 50° and upwards at many of the English and French stations, and to 56° at Cambridge, exceeding 60° in many parts of southern Europe, and reaching 66° at San Fernando, and 73° at Cape Béarn.

*Wind* light to moderate from the Eastward or North-Eastward over the Baltic, Germany, the Netherlands, the south of England, and the greater part of France; light from the South-ward in Ireland and Scotland, and also in Sweden and the south of Norway; Easterly in the west of Norway. Westerly over northern Russia, but North-Easterly over the central and southern parts of that country; Northerly or North-Westerly in Austria, and also over the Spanish Peninsula. No important change occurring later.

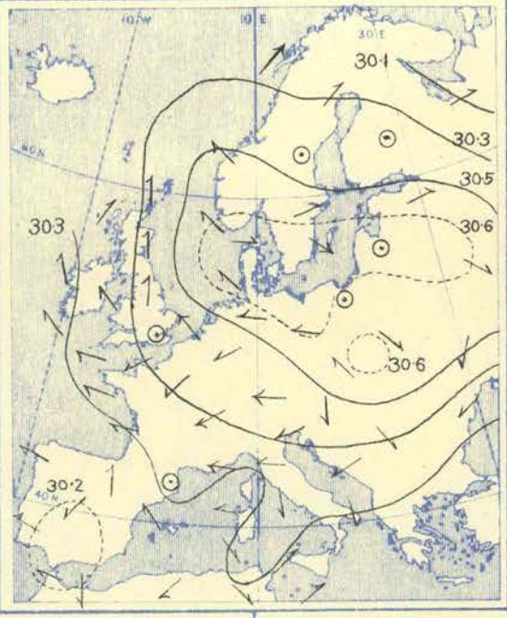
*Barometer* highest, 30·6 ins. and upwards over Finland and the south of Sweden; 30·2 ins. and upwards in an anticyclone covering all but the southern and extreme western parts of Europe. Lowest, 29·9 ins. and less in a depression over the Black Sea; 30·1 ins. and less in a shallow system over the Gulf of Genoa. No material change occurring over western Europe during day.

## Saturday, 25th February.

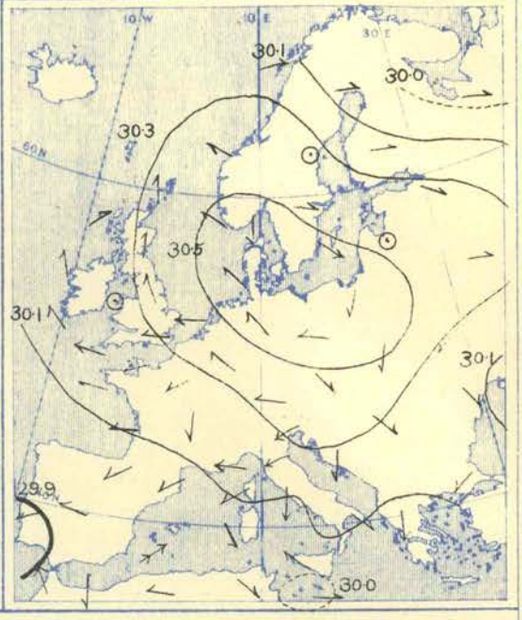
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair or fine over western and southern Europe generally, but foggy or misty in many parts of Great Britain; dull in Ireland, with rain at Valencia. Dull also over Russia and central Europe, with snow in several places; rain falling at Nice. No important change occurring later over western Europe, but rain falling in many parts of Spain, Italy, and the south of France

*Temperature* risen over the northern and central parts of our Islands, and also in Scandinavia, but fallen elsewhere. Morning readings highest, 56° at Algiers, 54° at Barcelona, and 53° at Malta; above 50° at most of the Mediterranean and Spanish coast stations, and just touching 50° at Scilly. Lowest, 1° at Moscow, 9° at Kiev and Kharkov, and 10° at Buda-Pesth; below the freezing point in most parts of northern and central Europe, and also in the east of England. Not exceeding 40° all day on the east coasts of England, but rising above 50° on our western coasts; exceeding 60° in several parts of southern Europe, and reaching 66° at Bilbao, and 70° at Cape Béarn. Sharp frost occurring over Great Britain at night.

*Wind* light to fresh from the Eastward or North-Eastward over England, France, northern Italy, Germany, and the Netherlands; fresh from the South-Eastward in Ireland; light from the Southward in Scotland. South-Westerly or Westerly over Scandinavia and Northern Russia, but North-Easterly in the south of Russia, and Northerly in Austria; variable over southern Italy. No important change occurring over western Europe during day.

*Barometer* highest, 30·6 ins. and upwards over Denmark, North Germany, the south of Scandinavia, and the western and central parts of Russia; 30·1 ins. and upwards in an anticyclone covering nearly the whole of Europe. Lowest, 30·0 ins. and less in a depression lying off the Portuguese coasts. No important change occurring later, but depression spreading slowly north-eastwards over the Spanish Peninsula.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the commencement of the week barometric pressure was highest over central Russia, a new anticyclone being, however, shortly developed over our Islands. Between these two areas a well-marked depression was formed over the Baltic and south of Sweden, the disturbance ultimately moving south-eastward and southward across Russia, and occasioning snow in many parts of that country.

The anticyclone over our Islands in the meantime increased, both in size and height, and ultimately embraced the greater part of Europe, its central area being found at first over the North Sea and the neighbouring countries, and afterwards over Scandinavia and northern Russia. On the 21st the weather over the western parts of the United Kingdom was temporarily affected by a large shallow depression which spread north-eastwards over the Bay of Biscay and our south-west coasts, and occasioned heavy rain over the St. George's Channel and Irish Sea. Later on, however, fair, dry weather set in over the whole of western Europe, the prevailing winds being mostly Easterly over England, France, and neighbouring parts of the Continent, but South-Easterly or Southerly in Ireland and Scotland. Sharp night frosts were experienced over nearly the whole of north-western, northern, and central Europe, but in our Islands the day temperatures were rather high, the thermometer over England frequently rising above 50°, and in some instances even a trifle above 55°. At the close of the week, however, the Easterly winds over England became rather more decided, and colder weather spread over from the Continent.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 44.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 41·0 | ? | 60 | ? | WATERGATE (Emsworth) | 46·6 | ? | 65 | |
| STRATHPEFFER SPA | 45·1 | +27·5 | 66 | +40 | BRIGHTON | 43·9 | +22·9 | 61 | +32 |
| EDINBURGH | 24·7 | + 9·5 | 35 | +13 | BOGNOR | 45·7* | ? | 63* | ? |
| MORPETH | 23·4 | ? | 33 | ? | EASTBOURNE | 42·2 | +22·7 | 59 | +32 |
| NEWCASTLE-ON-TYNE | 12·0 | ? | 17 | ? | VENTNOR HOSPITAL | 41·3 | ? | 57 | ? |
| OSWALDKIRK (Yorkshire) | 31·5 | +14·5 | 44 | +20 | SOUTHPORT | 33·2 | ? | 47 | ? |
| HOLLESLEY BAY | 44·0 | ? | 61 | ? | COLWYN BAY | 38·9 | ? | 54 | ? |
| SHEFFIELD | 18·1 | ? | 25 | ? | ABERDOVEY | 39·5* | ? | 55* | ? |
| WORKSOP | 27·9 | +11·9 | 39 | +16 | TENBY | 35·7 | +12·9 | 50 | +18 |
| THURCASTON (Leicestershire) | 31·7 | +15·7 | 44 | +21 | NEWQUAY | 33·4 | +11·5 | 46 | +15 |
| PLUMSTEAD COMMON | 37·1 | ? | 52 | ? | TORQUAY | 21·4* | + 2·3 | 29* | + 2 |
| MARGATE | 41·5 | +22·9 | 58 | +32 | GUERNSEY | 30·2* | + 5·9 | 41* | + 7 |
| WESTBOURNE (Emsworth) | 47·2* | +26·0 | 66* | +36 | | | | | |

* The values at Westbourne, Bognor, Torquay, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW ; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 9.] *Third Series.* WEEK ENDING SATURDAY, MARCH 4TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 50.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 58 | 19 | 46·9 | 35·1 | 40·8 | 3 above | 14 | +7 | 26 | - 9 | 58 | - 1 | 324 | - 37 |
| | 1. SCOTLAND, EAST | 60 | 13 | 48·4 | 32·5 | 40·2 | 2 above | 18 | + 7 | 36 | - 3 | 60 | - 15 | 374 | - 14 |
| | 2. ENGLAND, N.E. | 59 | 21 | 47·6 | 33·3 | 40·3 | 1 above | 16 | + 4 | 33 | + 1 | 123 | + 52 | 244 | - 98 |
| | 3. ENGLAND, EAST | 59 | 19 | 48·5 | 28·3 | 38·1 | 1 below | 18 | + 2 | 50 | +14 | 168 | + 81 | 226 | -165 |
| | 4. MIDLAND COUNTIES | 57 | 19 | 48·4 | 27·1 | 37·4 | 2 below | 18 | + 3 | 54 | +19 | 171 | + 77 | 273 | -115 |
| | 5. ENGLAND SOUTH | 59 | 22 | 49·3 | 29·7 | 39·2 | 1 below | 20 | + 2 | 46 | +18 | 217 | +108 | 149 | - 164 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 56 | 21 | 47·2 | 35·6 | 41·2 | 1 above | 15 | + 4 | 25 | - 2 | 99 | + 11 | 240 | - 35 |
| | 7. ENGLAND, N.W. | 54 | 24 | 46·7 | 33·9 | 40·1 | 0 (average) | 13 | + 1 | 30 | + 3 | 154 | + 74 | 190 | - 96 |
| | 8. ENGLAND, S.W. | 56 | 20 | 48·8 | 32·4 | 40·4 | 2 below | 19 | 0 | 37 | +15 | 223 | + 84 | 130 | -102 |
| | 9. IRELAND, NORTH | 57 | 26 | 48·5 | 36·5 | 42·3 | 1 above | 25 | +10 | 15 | - 9 | 133 | + 15 | 210 | - 30 |
| | 10. IRELAND, SOUTH | 57 | 24 | 50·9 | 36·4 | 43·4 | 1 above | 33 | +10 | 16 | - 1 | 210 | + 31 | 154 | - 30 |
| | —CHANNEL ISLANDS- | 55 | 29 | 51·0 | 37·5 | 44·1 | 1 below | 34 | +10 | 13 | + 3 | 365 | +171 | 42 | - 64 |

### Rainfall.

| | DISTRICTS. (See p. 50.) | For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 5 | 9 | 1 less | 40 | - 6 | 9·0 | - 1·5 |
| | 1. SCOTLAND, EAST | 2 | 1 | 5 less | 37 | + 2 | 5·9 | + 0·4 |
| | 2. ENGLAND, N.E. | 2 | 1 | 3 less | 35 | + 2 | 3·6 | - 0·2 |
| | 3. ENGLAND, EAST | 1 | 1 | 3 less | 34 | 0 | 3·6 | - 0·2 |
| | 4. MIDLAND COUNTIES | 1 | 1 | 3 less | 35 | + 3 | 6·2 | + 1·6 |
| | 5. ENGLAND, SOUTH | 0 | less than ½ | 4 less | 32 | + 1 | 5·4 | + 0·3 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 3 | 3 | 5 less | 40 | + 1 | 9·5 | - 0·7 |
| | 7. ENGLAND, N.W. | 2 | 1 | 4 less | 38 | + 3 | 7·1 | + 1·4 |
| | 8. ENGLAND, S.W. | 1 | less than ½ | 6 less | 36 | 0 | 11·2 | + 3·8 |
| | 9. IRELAND, NORTH | 3 | 1 | 5 less | 44 | + 3 | 6·6 | - 0·1 |
| | 10. IRELAND, SOUTH | 0 | less than ½ | 6 less | 39 | + 1 | 10·4 | + 2·8 |
| | — CHANNEL ISLANDS- | 1 | less than ½ | 5 less | 36 | - 4 | 7·4 | + 1·0 |

### Bright Sunshine.

| | DISTRICTS. (See p. 50.) | For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 22 | + 3 | 30 | + 3 | 119 | + 33 | 22 | + 6 |
| | 1. SCOTLAND, EAST | 25 | + 5 | 34 | + 6 | 132 | + 20 | 26 | + 5 |
| | 2. ENGLAND, N.E. | 25 | + 3 | 33 | + 3 | 126 | + 13 | 22 | + 2 |
| | 3. ENGLAND, EAST | 42 | +17 | 56 | +21 | 212 | + 70 | 36 | +13 |
| | 4. MIDLAND COUNTIES | 36 | +18 | 48 | +24 | 155 | + 45 | 29 | + 8 |
| | 5. ENGLAND, SOUTH | 48 | +24 | 64 | +33 | 202 | + 69 | 35 | +12 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 26 | + 8 | 35 | +10 | 112 | + 10 | 21 | + 2 |
| | 7. ENGLAND, N.W. | 35 | +13 | 47 | +16 | 148 | + 33 | 26 | + 6 |
| | 8. ENGLAND, S.W. | 49 | +25 | 65 | +32 | 175 | + 32 | 31 | + 5 |
| | 9. IRELAND, NORTH | 34 | +15 | 46 | +21 | 144 | + 29 | 26 | + 4 |
| | 10. IRELAND, SOUTH | 46 | +25 | 61 | +32 | 160 | + 23 | 29 | + 4 |
| | — CHANNEL ISLANDS- | 58 | +34 | 76 | +42 | 190 | + 37 | 34 | + 6 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was again very fine and dry generally, the only rain experienced being rather slight falls at our extreme north-western and northern stations during the latter half of the week, and some trifling amounts over central and eastern England on Tuesday night.

*Temperature* was a little above the mean over Ireland, Scotland, and the north-east of England, just equal to the normal in England N.W., and slightly below it elsewhere. The highest of the maxima were recorded on March 1st, when they ranged from 60° in Scotland E., and 59° in England N.E., E., and S., to 54° in England N.W. The lowest of the minima, which were recorded during the earlier days of the period, ranged from 13° in Scotland E. (at Braemar), and from 19° in Scotland N., England N.E., and the Midland counties, to 26° in Ireland N., and to 29° in the Channel Islands. The lowest grass minimum reported was 10° at Worksop on February 28th.

*Rainfall* was again much less than the mean generally, but nearly approached the normal value in Scotland N. At many of our southern and south-western stations the week was quite rainless.

*Bright Sunshine* was greatly in excess of the mean, the percentage of the possible duration ranging from 76 in the Channel Islands, 65 in England S.W., 64 in England S., and 61 in Ireland S., to 33 in England N.E., and 30 in Scotland N.

*Barometer and Wind.*—During the whole of this period the distribution of barometric pressure remained anticyclonic over the greater part of our Islands. The centre of the system was at first situated to the eastward or south-eastward, but subsequently to the south-westward or southward of our Islands. Depressions travelling eastwards to Norway caused moderate to fresh Westerly winds to prevail on our extreme northern coasts, where they increased to a gale on the night of Wednesday. In the south-east and south light airs between North and East were most general. At the end of the period a shallow secondary depression was moving eastwards over England, and the winds at our southern stations had shifted to the Westward.

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613 | 70 3 | 99.

# II.—DATA from which the SUMMARY on page 49 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Rainfall Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 48 | 27 | 44·6 | 38·0 | 41·2 | + 3·2 | 7 | 15 | 5 | 0·62 | − 0·08 | * | * | * | * |
| | Stornoway | 52 | 29 | 47·4 | 38·7 | 42·9 | + 4·0 | 20 | 9 | 5 | 0·58 | − 0·30 | 18·0 | − 0·9 | 25 | − 2 |
| | Wick | 53 | 25 | 48·1 | 34·3 | 41·0 | + 2·6 | 17 | 30 | 3 | 0·38 | − 0·16 | * | * | * | * |
| | Lairg Ⓢ | 58 | 19 | 49·2 | 31·5 | 40·1 | + 3·3 | 20 | 40 | 4 | 0·60 | − 0·09 | * | * | * | * |
| | Glencarron Ⓢ | 51 | 25 | 46·5 | 33·7 | 39·9 | + 2·9 | 13 | 31 | 5 | 2·49 | + 1·06 | * | * | * | * |
| | Fort Augustus Ⓢ | 51 | 21 | 46·3 | 33·2 | 39·6 | + 0·8 | 12 | 33 | 4 | 0·37 | − 0·53 | 17·5 | + 4·3 | 24 | + 6 |
| | Fort William Ⓢ | 51 | 25 | 46·3 | 36·3 | 41·2 | + 1·6 | 12 | 22 | 5 | 1·22 | − 0·48 | 23·2 | + 5·9 | 32 | + 8 |
| 1. SCOTLAND E. | Nairn | 55 | 21 | 50·9 | 32·1 | 41·2 | + 2·3 | 25 | 39 | 4 | 0·07 | − 0·40 | * | * | * | * |
| | Aberdeen | 60 | 23 | 48·6 | 34·6 | 41·4 | + 2·7 | 18 | 29 | 4 | 0·11 | − 0·39 | 23·4 | + 1·4 | 32 | + 1 |
| | Braemar Ⓢ | 53 | 12 | 46·6 | 28·2 | 37·0 | + 2·2 | 13 | 49 | 4 | 0·09 | − 0·57 | 31·8† | +10·0† | 44† | +14† |
| | Ochtertyre Ⓢ | 56 | 18 | 49·1 | 33·3 | 41·0 | + 3·1 | 20 | 34 | 1 | 0·03 | − 0·62 | * | * | * | * |
| | Leith | 55 | 24 | 47·6 | 33·6 | 40·4 | + 0·5 | 16 | 32 | 1 | 0·05 | − 0·23 | * | * | * | * |
| | Marchmont Ⓢ | 54 | 23 | 47·4 | 33·0 | 40·0 | + 2·4 | 15 | 34 | 0 | — | − 0·50 | 28·3 | + 8·3 | 38 | +10 |
| 2. ENGLAND, N.E. | Alnwick Castle | 56 | 22 | ? | 33·9 | ? | ? | ? | ? | 2 | 0·06 | − 0·42 | * | * | * | * |
| | Durham | 59 | 21 | 48·0 | 32·1 | 39·8 | + 1·5 | 17 | 37 | 2 | 0·12 | − 0·28 | 19·0 | − 1·0 | 26 | − 2 |
| | Shields | 57 | 27 | 48·1 | 33·4 | 40·5 | + 0·8 | 17 | 33 | 2 | 0·04 | − 0·28 | * | * | * | * |
| | Scarborough Ⓜ | 57 | 30 | 49·5 | 34·6 | 41·8 | + 2·1 | 21 | 29 | 2 | 0·08 | − 0·28 | 38·0 | ? | 51 | ? |
| | York | 55 | 21 | 47·1 | 30·7 | 38·7 | − 0·9 | 14 | 42 | 2 | 0·07 | − 0·26 | 24·7 | + 5·9 | 33 | + 7 |
| | Spurn Head | 49 | 32 | 45·3 | 35·9 | 40·5 | + 1·1 | 9 | 23 | 2 | 0·02 | − 0·23 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 53 | 21 | 47·8 | 27·7 | 37·5 | − 1·1 | 16 | 52 | 2 | 0·04 | − 0·32 | 30·6 | + 9·4 | 41 | +13 |
| | Yarmouth | 55 | 27 | 46·3 | 31·7 | 38·8 | + 0·1 | 12 | 38 | 1 | 0·01 | − 0·34 | * | * | * | * |
| | Geldeston | 59 | 23 | 49·7 | 29·3 | 39·2 | − 0·4 | 22 | 48 | 1 | 0·08 | − 0·22 | 40·8 | +18·7 | 54 | +23 |
| | Cambridge | 57 | 20 | 50·3 | 24·9 | 37·2 | − 2·6 | 23 | 63 | 1 | 0·02 | − 0·26 | 39·7 | +18·7 | 53 | +23 |
| | Felixstowe | 52 | 27 | 48·4 | 30·9 | 39·4 | − 0·8 | 18 | 42 | 1 | 0·05 | ? | 49·8 | ? | 66 | ? |
| | Rothamsted | 53 | 19 | 48·6 | 25·3 | 36·6 | − 2·7 | 18 | 61 | 1 | 0·08 | − 0·29 | 41·7 | +20·7 | 56 | +27 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 53 | 22 | 46·9 | 28·0 | 37·2 | − 2·4 | 14 | 51 | 1 | 0·02 | − 0·25 | * | * | * | * |
| | Loughborough | 57 | 20 | 50·0 | 26·9 | 38·1 | − 1·7 | 22 | 56 | 3 | 0·06 | − 0·25 | * | * | * | * |
| | Stamford (Duddington) | 55 | 21 | 47·6 | 26·7 | 36·8 | − 3·0 | 16 | 55 | 0 | — | − 0·28 | * | * | * | * |
| | Cheadle Ⓜ | 53 | 25 | 46·7 | 30·1 | 38·2 | + 0·1 | 13 | 44 | 2 | 0·17 | − 0·30 | * | * | * | * |
| | Shirley (near Solihull) | 57 | 21 | 48·0 | 27·5 | 37·5 | − 2·3 | 17 | 53 | 1 | 0·16 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 56 | 20 | 49·6 | 26·6 | 37·8 | − 1·5 | 21 | 57 | 1 | 0·10 | − 0·35 | 48·2 | +28·2 | 64 | +37 |
| | Hereford Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 55 | 19 | 48·4 | 24·0 | 35·8 | − 3·1 | 18 | 65 | 1 | 0·04 | − 0·41 | 45·0 | +23·3 | 60 | +30 |
| | Oxford | 57 | 23 | 50·1 | 26·7 | 38·1 | − 1·9 | 23 | 57 | 1 | 0·01 | − 0·33 | 40·3 | +20·2 | 54 | +27 |
| 5. ENGLAND S. | London | 55 | 22 | 49·0 | 26·7 | 37·5 | − 3·3 | 20 | 56 | 0 | — | − 0·30 | 19·5† | + 6·7† | 26† | + 9† |
| | Cranley Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Dungeness | 53 | 22 | 48·7 | 29·6 | 38·9 | − 1·0 | 19 | 46 | 0 | — | − 0·31 | * | * | * | * |
| | Hastings (St. Leonards) | 57 | 30 | 48·4 | 31·6 | 39·8 | − 0·9 | 18 | 39 | 0 | — | − 0·40 | 57·1 | +32·1 | 76 | +43 |
| | Southampton | 59 | 25 | 51·8 | 27·9 | 39·5 | − 2·1 | 27 | 54 | 1 | 0·07 | − 0·38 | 44·7 | +21·8 | 60 | +28 |
| | Hurst Castle | 54 | 27 | 49·3 | 31·0 | 39·9 | − 1·2 | 20 | 42 | 0 | — | − 0·38 | * | * | * | * |
| | Shaftesbury Ⓜ | 52 | 27 | 48·4 | 31·5 | 39·7 | + 0·1 | 18 | 39 | 1 | 0·01 | − 0·51 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 52 | 32 | 47·8 | 38·5 | 43·0 | + 2·5 | 22 | 10 | 5 | 0·77 | − 0·63 | * | * | * | * |
| | Glasgow | 50 | 25 | 44·9 | 35·9 | 40·3 | + 1·3 | 8 | 23 | 3 | 0·25 | − 0·35 | 16·1 | + 1·9 | 22 | + 2 |
| | Ardrossan | 52 | 27 | 47·0 | 36·0 | 41·3 | + 1·0 | 14 | 23 | 2 | 0·10 | − 0·40 | * | * | * | * |
| | Glenlee Ⓢ | 56 | 21 | 48·3 | 31·5 | 39·7 | + 0·7 | 18 | 40 | 3 | 0·13 | − 0·74 | * | * | * | * |
| | Douglas (Isle of Man) | 52 | 29 | 48·1 | 35·9 | 41·8 | + 1·1 | 17 | 24 | 1 | 0·01 | − 0·58 | 34·8 | +12·8 | 47 | +17 |
| 7. ENGLAND, N.W. | Stonyhurst | 48 | 24 | 44·6 | 31·0 | 37·3 | − 1·7 | 6 | 39 | 2 | 0·07 | − 0·65 | 21·2 | + 2·7 | 29 | + 4 |
| | Blackpool Ⓜ | 50 | 26 | 46·2 | 33·4 | 39·6 | + 0·2 | 12 | 32 | 2 | 0·14 | − 0·26 | 27·6 | + 9·1 | 37 | +11 |
| | Manchester (Prestwich) | 52 | 25 | 46·7 | 31·1 | 38·7 | − 0·2 | 13 | 40 | 2 | 0·05 | − 0·40 | 22·9 | ? | 31 | ? |
| | Liverpool Obsy. (Bidston) | 53 | 27 | 46·4 | 34·3 | 40·2 | − 0·7 | 12 | 29 | 1 | 0·04 | − 0·26 | 36·6 | ? | 49 | ? |
| | Llandudno Ⓜ | 54 | 30 | 48·8 | 36·6 | 42·5 | + 0·6 | 26 | 15 | 2 | 0·15 | − 0·24 | 45·6 | +25·2 | 61 | +33 |
| | Holyhead | 51 | 32 | 47·9 | 37·1 | 42·3 | + 0·4 | 23 | 14 | 2 | 0·14 | − 0·35 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 54 | 21 | 50·4 | 27·3 | 38·5 | − 2·1 | 24 | 55 | 2 | 0·08 | − 0·73 | * | * | * | * |
| | Pembroke | 49 | 35 | 46·7 | 39·4 | 42·9 | + 0·7 | 17 | 7 | 0 | 0·01‡ | − 0·50 | 41·2 | +17·0 | 55 | +22 |
| | Clifton | 53 | 27 | 48·2 | 29·8 | 38·7 | − 2·8 | 17 | 45 | 1 | 0·17 | − 0·31 | * | * | * | * |
| | Arlington (N. Devon) | 52 | 26 | 46·9 | 30·0 | 38·2 | − 2·6 | 14 | 44 | 1 | 0·02 | − 0·90 | * | * | * | * |
| | Cullompton Ⓜ | 56 | 20 | 51·2 | 26·2 | 38·3 | − 3·8 | 26 | 59 | 0 | 0·02‡ | − 0·68 | 47·1 | +25·3 | 63 | +33 |
| | Falmouth | 49 | 35 | 47·9 | 38·2 | 42·9 | − 0·8 | 22 | 11 | 1 | 0·03 | − 0·86 | 54·9 | +30·1 | 72 | +39 |
| | Plymouth | 52 | 30 | 48·5 | 32·5 | 40·3 | − 2·2 | 18 | 36 | 1 | 0·01 | − 0·54 | 50·4 | +26·1 | 66 | +33 |
| | Prawle Point | 56 | 32 | 50·9 | 35·7 | 43·1 | + 1·2 | 34 | 18 | 0 | — | − 0·41 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 50 | 35 | 47·3 | 39·6 | 43·3 | + 1·4 | 19 | 7 | 3 | 0·09 | ? | * | * | * | * |
| | Londonderry | | | | | | | | | | | | * | * | * | * |
| | Edenfel (Omagh) | 54 | 29 | 47·1 | 34·6 | 40·7 | + 1·1 | 14 | 28 | 2 | 0·06 | − 0·43 | * | * | * | * |
| | Belmullet | 51 | 35 | 49·0 | 41·1 | 44·9 | + 1·8 | 24 | 3 | 6 | 0·15 | − 0·75 | * | * | * | * |
| | Markree Castle | 55 | 30 | 50·1 | 34·5 | 42·1 | + 1·6 | 32 | 21 | 2 | 0·27 | − 0·39 | 34·8 | +15·8 | 47 | +21 |
| | Armagh | 53 | 28 | 48·9 | 34·7 | 41·6 | + 1·6 | 19 | 29 | 1 | 0·02 | − 0·55 | 33·6 | +15·1 | 45 | +20 |
| | Donaghadee | 57 | 26 | 48·7 | 34·4 | 41·2 | + 0·3 | 19 | 29 | 2 | 0·08 | − 0·33 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 56 | 29 | 50·6 | 35·9 | 43·0 | + 0·8 | 33 | 17 | 1 | 0·01 | − 0·43 | 47·6 | +26·5 | 63 | +34 |
| | Parsonstown | 55 | 28 | 50·1 | 32·9 | 41·3 | + 0·3 | 23 | 36 | 0 | 0·01‡ | − 0·46 | 43·2 | +23·2 | 58 | +31 |
| | Kilkenny | 57 | 24 | 50·9 | 32·0 | 41·2 | − 1·0 | 25 | 39 | 0 | — | − 0·49 | * | * | * | * |
| | Roche's Point | 55 | 34 | 51·1 | 39·7 | 45·2 | + 1·6 | 32 | 6 | 0 | — | − 0·86 | * | * | * | * |
| | Valencia | 53 | 41 | 51·6 | 42·9 | 47·1 | + 2·3 | 36 | 0 | 1 | 0·11 | − 0·96 | 45·7 | +23·3 | 61 | +30 |
| | Killarney | 55 | 29 | 51·5 | 35·4 | 43·2 | − 0·8 | 36 | 18 | 1 | 0·08 | ? | * | * | * | * |
| | Foynes | 57 | 26 | 50·4 | 35·8 | 42·9 | + 0·3 | 32 | 17 | 0 | — | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 54 | 40 | 50·9 | 41·6 | 46·1 | + 0·8 | 30 | 1 | 0 | — | − 0·56 | 52·7 | ? | 69 | ? |
| | Jersey | 55 | 29 | 51·1 | 33·4 | 42·0 | − 1·7 | 25 | 24 | 1 | 0·05 | − 0·47 | 61·4 | +33·7 | 81 | +43 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

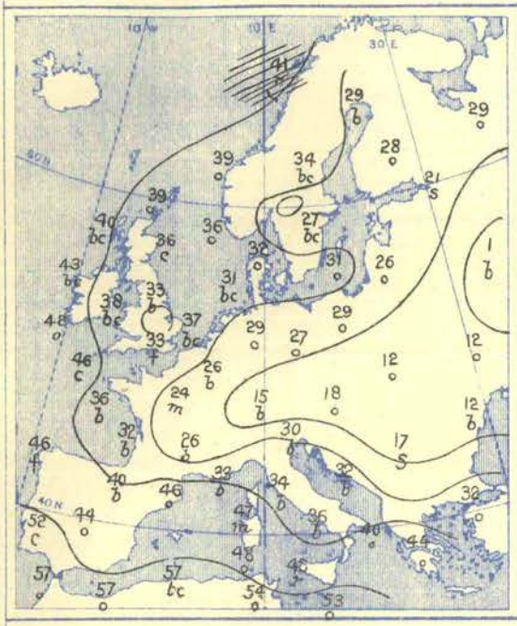
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page. ‡ Dew.

Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 26th February.

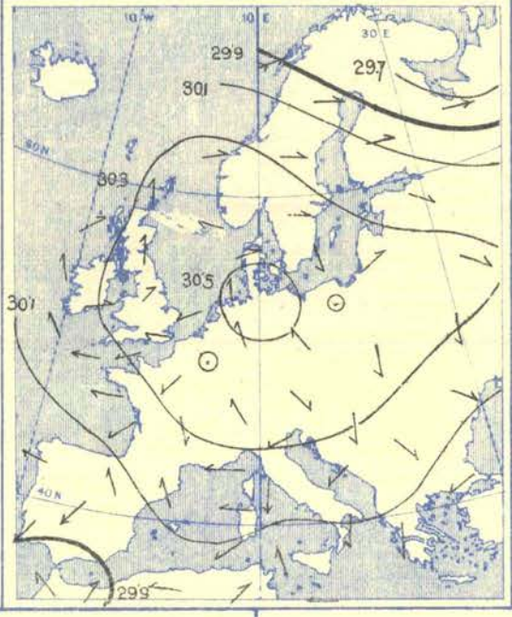
### Temperature and Weather.

8 a.m.

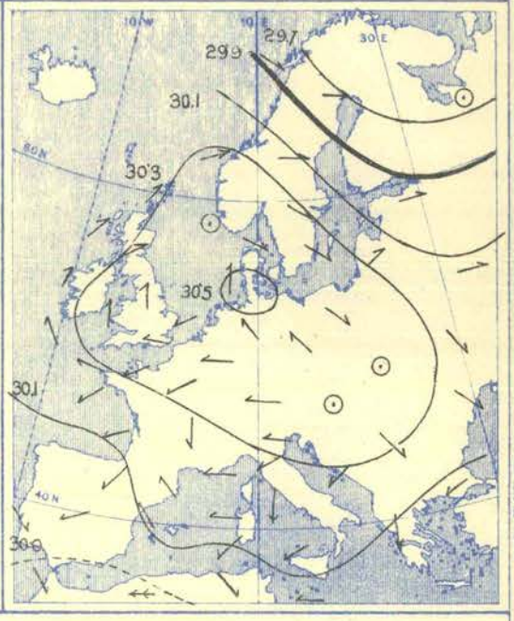


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine generally over central and south-eastern Europe, fair to fine over our Islands, but becoming rather unsettled over northern Europe, with rain at Christiansund; snow at St. Petersburg. Some rain later at Palermo and Madrid, and slight snow in some parts of northern Europe. No rainfall in our Islands or north-western Europe.

*Temperature* fallen a little over France; risen in many parts of Russia. Morning readings highest, 57° at Algiers, 59° at Oporto; 48° at Valencia (Ireland), 46° at Scilly, 40° at Stornoway, 41° at Bodö. Lowest, (1) 18° at Karlstad, 25° at Faerder; (2) 1° at Moscow, 12° at Kieff and Nicolaieff, 15° at Munich, 24° at Paris; (3) 22° at Loughborough, 24° at Cambridge. Rising later to 50° or a little more at very few of our stations; touching 52° at Paris, 61° at Biarritz and at some Algerian stations.

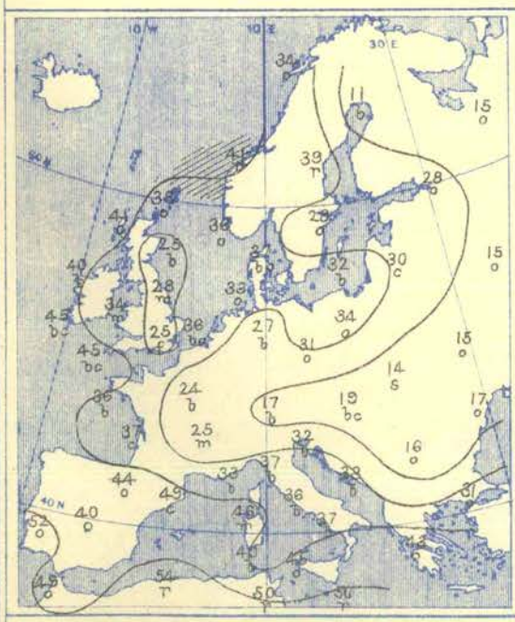
*Wind* light from East over France and the south of our Islands, from South in Ireland; strong from South-South-West in Fiumark; Westerly to Northerly, light, over Russia; North-Easterly to South-Easterly over Germany. Becoming South-Westerly and Westerly in the north of Scandinavia later, but becoming South-Easterly more generally over Germany.

*Barometer* highest, 30·5 ins. and more over the north-west of Germany, and exceeding 30·3 ins. in an anticyclone covering nearly the whole of central and north-western Europe; lowest, below 29·9 ins. over the southern parts of Spain, and below 29·8 ins. over the White Sea. Rising slightly in our Islands later, falling in the extreme north of Europe.

## Monday, 27th February.

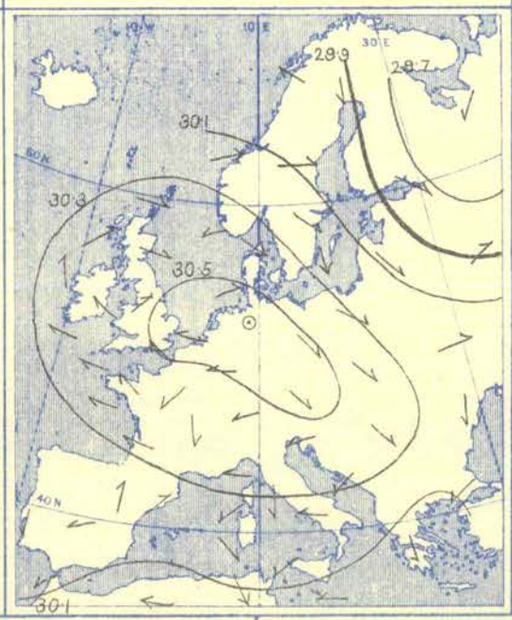
### Temperature and Weather.

8 a.m.

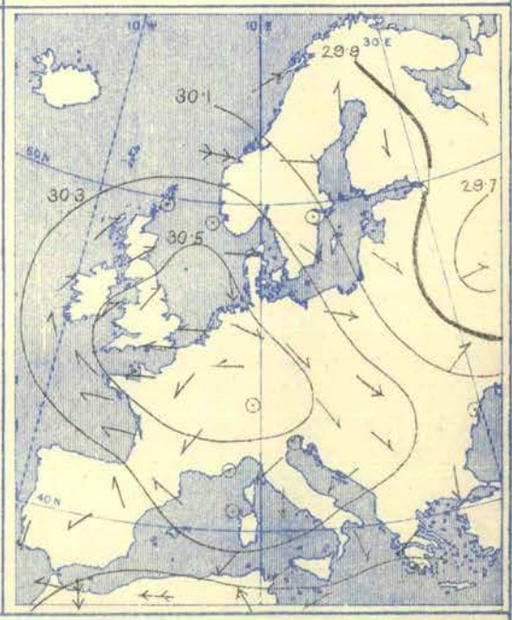


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair or fine over western, central and southern Europe as a whole, but with fog or mist in many parts of Great Britain. Dull in most of the northern and eastern countries, with rain at Christiansund and Hernösand, and snow at Lemberg. Fog over Great Britain clearing temporarily later; slight rain falling on our extreme north and north-west coasts, and also at Biarritz, and some snow over central Europe.

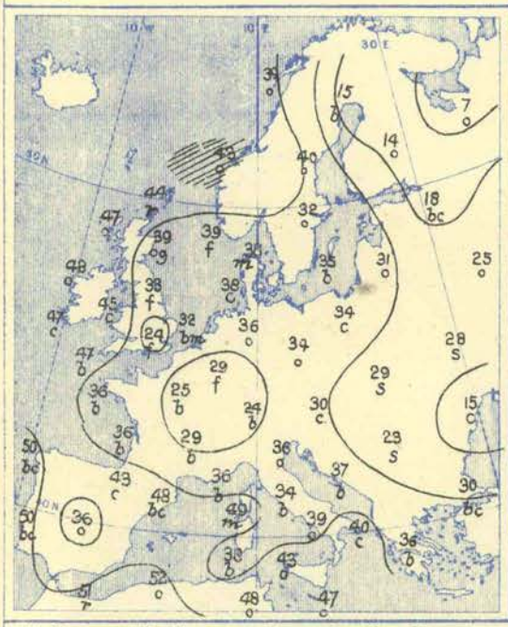
*Temperature* fallen over our Islands, France and the Spanish Peninsula, risen elsewhere. Morning readings highest, 54° at Oporto and Algiers, 52° at Lisbon, and 50° at Malta and Tunis; above 45° at most of the Mediterranean and Spanish coast stations. Lowest, 11° at Haparanda, 13° at Kharkov, 14° at Lemberg, and 15° at Archangel, Moscow and Kiev; considerably below the freezing point over central Europe generally, and also over the northern and inland parts of Great Britain. Rising during day to 50° or slightly above it at several of our own western and northern stations; exceeding 60° also in the west and south of France, and reaching 57° at Perpignan, 61° at Cape Bearn and Oran. Sharp frost occurring over England at night.

*Wind* light to moderate from the Eastward or North-Eastward over the south of England, the Netherlands, western Germany, France, and the greater part of southern Europe. Light from the South-Eastward in Ireland, and from the South-Westward or Westward in Scotland. Westerly or North-Westerly over Scandinavia, Denmark, Germany, Austria, and western Russia, and strong in force at Christiansund, Wisby and the Skaw. No important change occurring over western Europe during day.

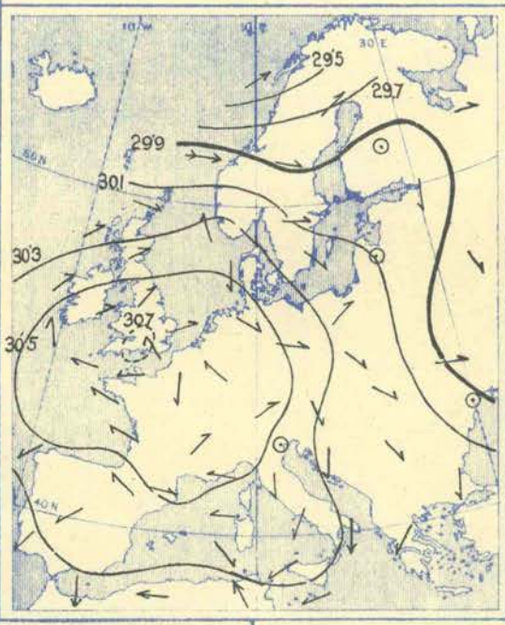
*Barometer* highest, 30·5 ins. and upwards over the southern parts of Denmark and the North Sea, north-western Germany, the Netherlands, and the eastern and central parts of England; 30·2 ins. and upwards in an anticyclone covering the greater part of Europe. Lowest, 29·7 ins. and less in a large shallow depression over northern Russia; 30·0 ins. and less in another shallow area over Algeria. Anticyclone moving slowly in a Westerly or South-Westerly direction during day, and barometer falling over northern Europe.

## Tuesday, 28th February.

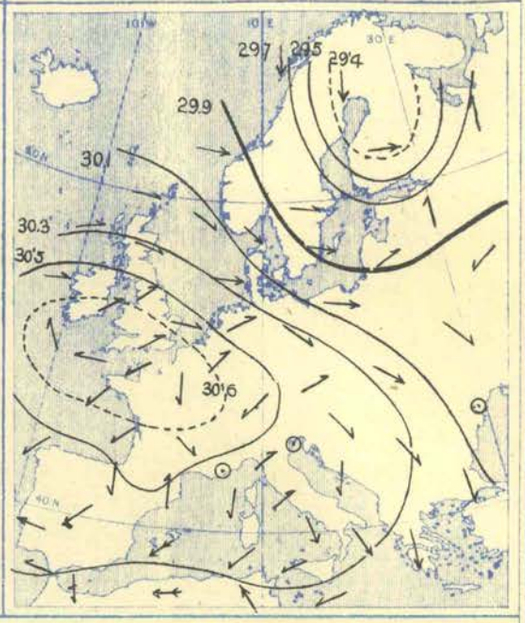
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.




### Barometer and Wind. — 6 p.m.




*Weather* in morning fine over western and southern Europe as a whole, but foggy in many parts of England, as well as at Brussels. Dull in the north of Scotland, and also over the northern, central and eastern parts of the Continent generally; rain falling at Sumburgh Head, and also at Breslau, and snow at several of the Russian and Austrian stations. Slight rain falling later over the northern and central parts of the United Kingdom, and also in the west of Norway and locally over the Baltic; lightning seen at Stornoway.

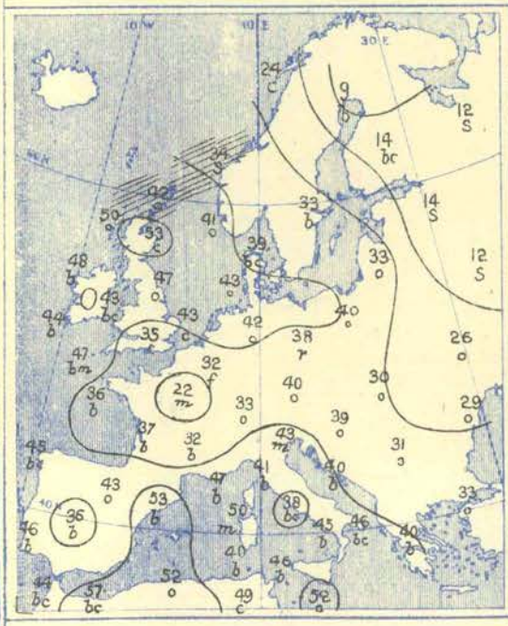
*Temperature* risen in all but the southern countries. Morning readings highest, 52° at Algiers, 51° at Bilbao and Nemours, and 50° at Corunna and Lisbon; above 45° at many of the Mediterranean and Spanish coast stations. Lowest, 7° at Archangel, 8° at Kharkov, and 10° at Nicolaieff; considerably below the freezing point over the central parts of England and France. Brisk rise taking place over our Islands later, and thermometer reaching 50° or more at most of our western and northern stations. Exceeding 55° in the west and south of France, and touching 58° at Perpignan and 72° at Cape Bearn. Frost occurring at night over the south of England, and also over central Ireland.

*Wind* light to moderate from the Southward or South-Westward over the greater part of the United Kingdom; Westerly in Scandinavia, with a gale at Christiansund; North-Westerly over Denmark, Germany and Austria; calm or variable in Scandinavia. Light from between North and East over the English Channel, France and the greater part of southern Europe. Subsequently veering a little more to the Westward in our Islands; no important change occurring elsewhere.

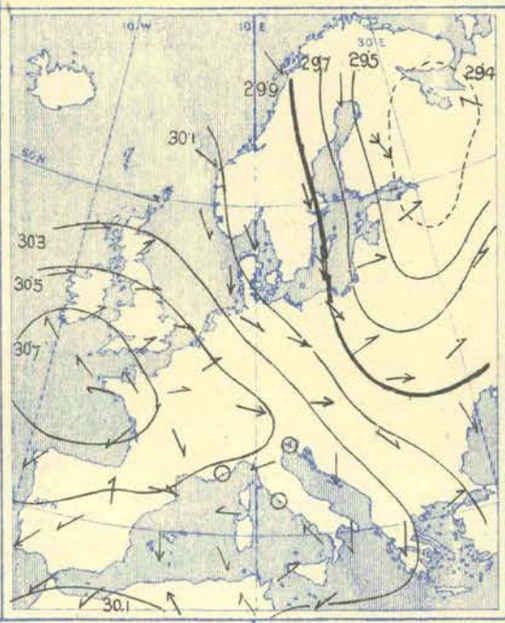
*Barometer* highest, 30·7 ins. and upwards over the south of England; 30·2 ins. and upwards in an anticyclone covering nearly the whole of western, central and southern Europe. Lowest, 29·5 ins. and less in a depression lying off the northern parts of the Norwegian coasts; 29·8 ins. and less in a large shallow disturbance over central Russia. Norwegian depression subsequently travelling eastwards; anticyclone drifting slowly in a south-westerly direction.

## Wednesday, 1st March.

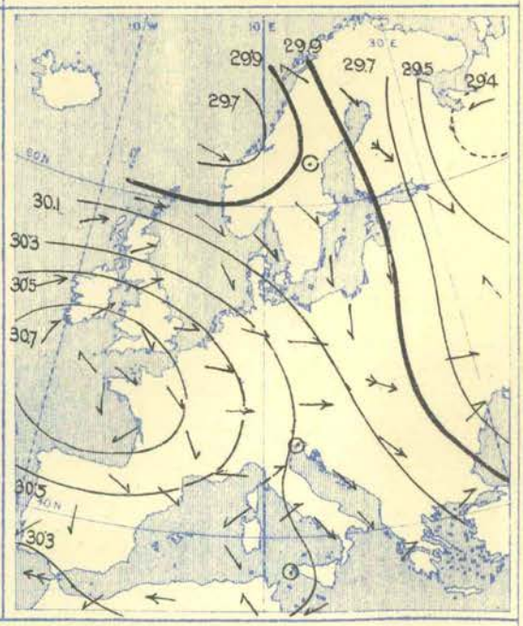
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.




### Barometer and Wind. — 6 p.m.




*Weather* in morning fine and bright over the Mediterranean and Spanish Peninsula, fine over France and the greater part of England and Ireland, cloudy and unsettled in Scotland and Norway. Snow falling later in Sweden, and rain at our northern stations, in some parts of Germany, and over the Baltic.

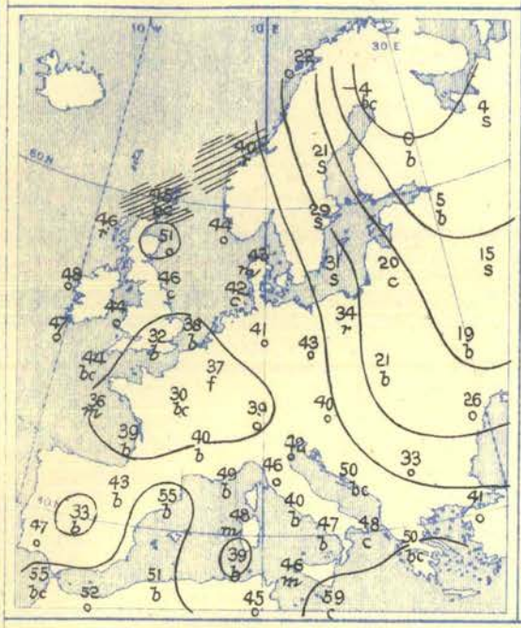
*Temperature* risen generally over our Islands. Morning readings highest, (1) 50° and more at several stations in north Africa and Spain; (2) 53° at Nairn and Aberdeen, 50° at Stornoway, 47° at Scilly. Lowest, (1) 9° at Uleaborg, 12° at Archangel and Moscow, 14° at St. Petersburg; (2) 22° at Paris, 28° at Belfort; (3) 29° at Parsonstown, 35° in London. Rising later to between 55° and 57° in many parts of England, and touching 60° at Aberdeen. Maxima 55 at Paris, 59° at Palermo, and 65° at Perpignan, 68° at Croisette.

*Wind* (1) moderate Westerly or South-Westerly over the greater part of our Islands, but light and anticyclonic over our south-western districts and France; (2) strong to a gale from North-West and North over Finland and the Baltic; light South-Westerly over central Russia. Increasing in force in the north of Scotland later, and backing to South-East at Christiansund.

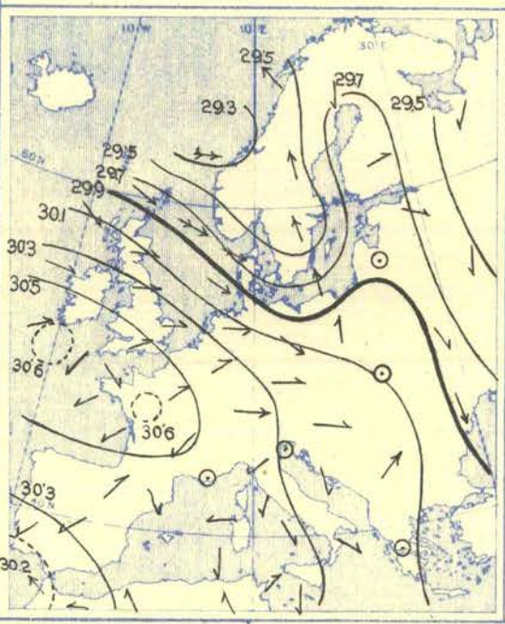
*Barometer* 30·7 ins. and more to 30·6 ins. over the south-western half of our Islands, the greater part of France and the Bay of Biscay. Lowest, 29·4 ins. and less over Finland. Falling decidedly later in the north of our Islands and the north-west of Norway, and beginning to fall at our southern stations also.

## Thursday, 2nd March.

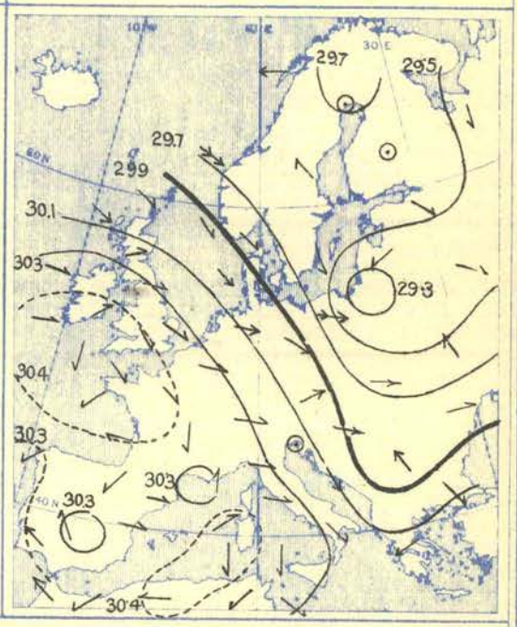
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over the southern and south-eastern parts of our Islands, as well as over France, the Mediterranean and south-western Europe; fine over Finland also. Dull and changeable over central Europe and Scandinavia, with rain in some places, snow in Sweden. Some rainfall later over the Baltic provinces in Sweden and the west of Norway, and a little rain over Scotland and the north-west of Ireland; continuing fine over the southern parts of our Islands and France.

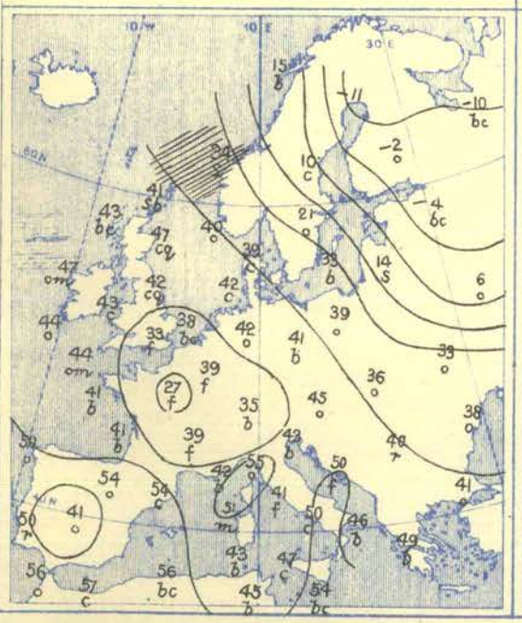
*Temperature* in morning highest, (1) 51° at Algiers, 52° at Oran; 47° to 48° in the west of Ireland, 51° at Aberdeen, 47° at Wick, 44° at Skudesnaes. Lowest, −4° Fahr. at Haparanda, 0° (zero) at Kuopio, 4° at Archangel, 15° at Moscow, 19° at Kharkov; (2) 30° at Paris and also at Oxford, 31° at Cambridge, 32° in London. Rising later to between 50° and 55° in many parts of our Islands, to 59° at Paris and Nice, to 63° in the west of France. 70° at La Calle.

*Wind* (1) Westerly over the greater part of our Islands, and rather strong at several of our north-western and northern stations; (2) light and mainly anticyclonic over our south-western and southern districts and in France; (3) blowing hard from West and North-West over Norway and Denmark, and strongly from South over Sweden; (4) Westerly and North-Westerly, moderate, over Germany and the south of Russia.

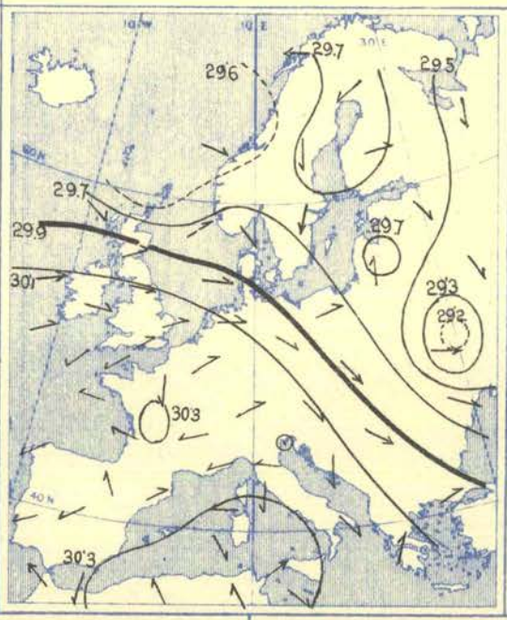
*Barometer* highest, 30·6 ins. to 30·5 ins. over France and the southern and south-western parts of our Islands. Lowest, (1) below 29·3 ins. in a depression off the north-west of Norway, and below 29·4 ins. in a secondary disturbance near Karlstad; (2) below 30·2 ins. in a shallow disturbance approaching the south-west of Spain. Rising in Norway later, but falling over the whole of Ireland, England and France.

## Friday, 3rd March.

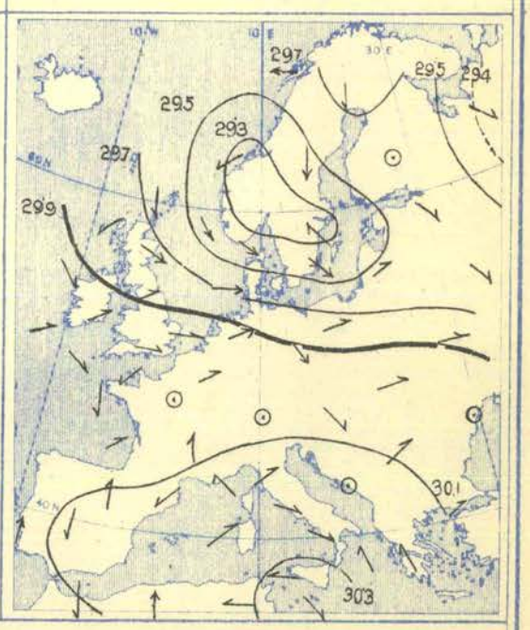
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning continuing fine over the Mediterranean, France and the southern parts of our Islands, also fine over the most northern parts of Europe; dull and unsettled both over Scotland and the west of Russia, with showers of cold rain or snow in places. Similar showers later over Sweden, the west of Norway, Scotland and Ireland, but weather remaining fine over England and France.

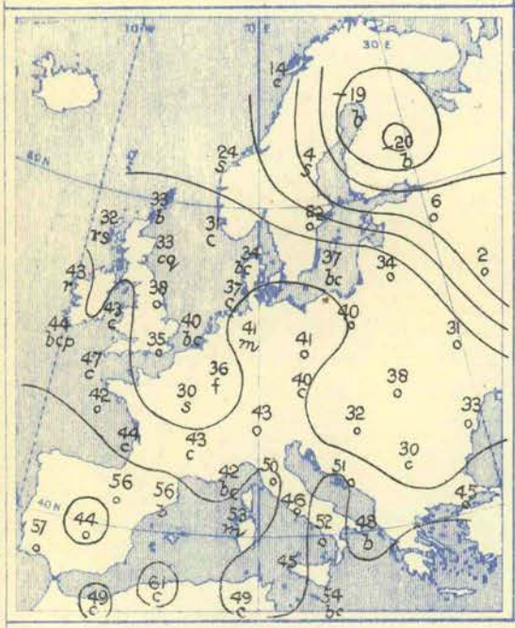
*Temperature* falling in the north of our Islands, rising over the south-western parts of Russia. Morning readings highest, (1) 55° to 57° on the Algerian coast, 54° at Oporto and Biarritz; (2) 47° at Belmullet, 44° at Scilly, Valencia and Nairn, 41° at Sumburgh Head, Berlin and Breslau. Lowest, (1) −11° Fahr. at Haparanda, −10° at Archangel, −4° at St. Petersburg, +6° at Moscow; (2) 27° at Paris, 33° in London, 37° at Loughborough. Rising later to between 50° and 52° in some parts of the United Kingdom to 55° at Paris, 57° at Nice, 61° at Rome, 64° at Rochefort, and 73° at Nemours and La Calle.

*Wind* (1) Westerly to North-Westerly over the greater part of the British Islands and the North Sea, and of moderate force; (2) very light and variable over the Mediterranean and southern Europe, as well as over Lapland and the Gulf of Bothnia; (3) Northerly over the Baltic, North-Westerly over Germany, Westerly to South-Westerly over the south-west of Russia and strong in places.

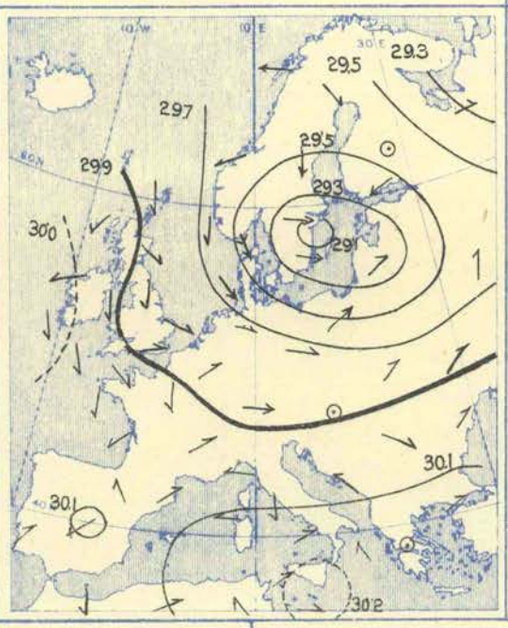
*Barometer* highest, 30·4 ins. to 30·2 ins. over the Mediterranean, France and the southern parts of our Islands. Lowest, (1) 29·2 ins. and less over the west of Russia; (2) 29·6 ins. and less over the Shetland Islands and west of Norway; (3) about 30·0 ins. off the south-west coast of Spain. Falling in most places all day, but rising in the north and north-west of the British Islands.

## Saturday, 4th March.

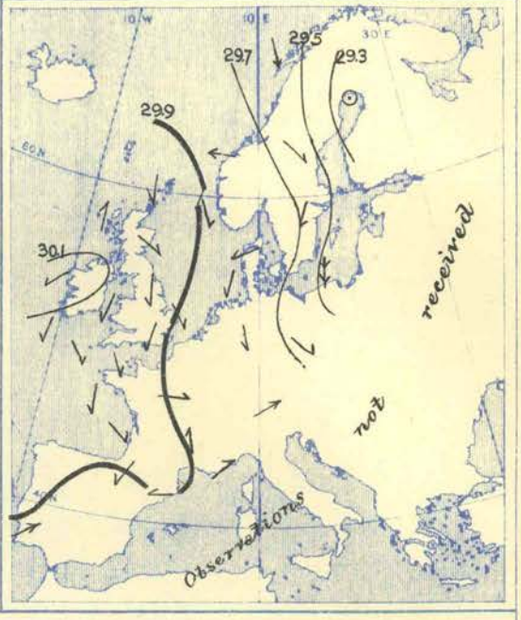
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.




*Weather* in morning continuing fine over many parts of the Mediterranean and southern Europe, fair over France, dull over Germany; unsettled over the Baltic and some parts of our Islands, with rain and snow showers in the west and north-west. Some cold showers in several parts of our Islands later; more decided in Germany and the east and south-east of France. "Graupel" in London in small quantities.

*Temperature* fallen decidedly at the northern stations and in Ireland. Morning readings highest, 61° at Algiers, 56° at Biarritz; 47° at Scilly, 44° at Valencia (Ireland); 40° to 42° over many parts of Germany. Lowest, −19° Fahr. at Haparanda, −20° at Kuopio and below −zero over the north of Russia generally; +2° at Moscow, +8° at Kharkov; (2) 34° to 39° over England, 34° at Paris.

*Wind* (1) moderate to light from North and North-West over our Islands; moderate, Westerly (but variable) over France and Germany; (2) strong and cyclonic over the Baltic; Southerly over Russia. Shifting to North and North-East over our Islands later, but becoming Southerly at Stornoway in the evening.

*Barometer* rising in the extreme north-west and north of our Islands and Norway; falling over England, France and Germany. Highest, 30·2 ins. and more to 30·0 ins. over Sicily and the Mediterranean, and 29·7 ins. and more to 29·6 ins. over the most northern parts of Europe. Lowest, 29·2 ins. and less in a depression (well defined) over the Baltic and south-east of Sweden; below 29·9 ins. in a secondary system over England. Both systems moving south-eastwards later, and cold northern winds spreading all over Great Britain.

### GENERAL NOTES.

On the morning of Sunday, February 26th, pressure was as high as 30·5 ins. and more over Holstein, Mecklenburg, and Hanover, and exceeded 30·3 ins. in a large anticyclone which covered Germany, the Baltic, and North Sea, and all the neighbouring parts of Scandinavia, Great Britain, and France—where temperature was low, the wind light, and no rainfall of any kind was registered. At night, however, pressure began to give way over Lapland and the White Sea, and as this continued slowly, disturbed weather began to spread over the Gulf of Bothnia, Russia, and the Baltic, and some even of our own north-eastern stations had a little rain. Temperature rose somewhat, as the North-Westerly to South-Westerly winds spread over us, so that a maximum of 60° was recorded at Aberdeen on the afternoon of March 2nd, and 57° at Oxford and Cambridge on the same day.

At the close of the week the disturbances which caused the broken weather (which was felt more over the Baltic, Sweden, and Russia than elsewhere), were all passing off, and in the rear of a shallow secondary system the wind was again becoming Northerly and North-Easterly, and the thermometer was going down.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 50.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 26·1 | ? | 36 | ? | WATERGATE (Emsworth) | 57·4 | ? | 77 | ? |
| STRATHPEFFER SPA | 22·7 | + 2·7 | 31 | + 2 | BRIGHTON | 55·9 | +32·1 | 75 | +43 |
| EDINBURGH | 16·4 | − 0·9 | 22 | − 1 | BOGNOR | 59·5* | ? | 79* | ? |
| MORPETH | 27·7 | ? | 37 | ? | EASTBOURNE | 56·1 | +35·8 | 75 | +44 |
| NEWCASTLE-ON-TYNE | 14·8 | ? | 20 | ? | VENTNOR HOSPITAL | 55·2 | ? | 74 | ? |
| OSWALDKIRK (Yorkshire) | | | | | SOUTHPORT | 36·3 | ? | 49 | ? |
| HOLLESLEY BAY | 47·0 | ? | 63 | ? | COLWYN BAY | 46·3 | ? | 62 | ? |
| SHEFFIELD | 24·0 | ? | 32 | ? | ABERDOVEY | 42·4* | ? | 57* | ? |
| WORKSOP | 22·5 | + 4·3 | 30 | + 5 | TENBY | 47·8 | +22·2 | 64 | +29 |
| THURCASTON (Leicestershire) | 25·3 | +17·4 | 47 | +22 | NEWQUAY | 53·3 | +28·7 | 70 | +36 |
| PLUMSTEAD COMMON | 26·8 | ? | 36 | ? | TORQUAY | 49·8* | +27·7 | 66* | +36 |
| MARGATE | 35·1 | +14·0 | 47 | +18 | GUERNSEY | 59·7* | +32·6 | 79* | +42 |
| WESTBOURNE (Emsworth) | 56·2* | +31·7 | 75* | +43 | | | | | |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| DATE OF REPORT. | NAMES OF STATIONS. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| Week ending Jan. 7th, 1899 | Liverpool | — | — | — | — | — | — | — | — | — | — | — | 9·9 | ? | 19 | ? |
| " " " " " | Bognor | — | — | — | — | — | — | — | — | — | — | — | 13·0 | ? | 24 | ? |
| " " " 14th, " | Liverpool | — | — | — | — | — | — | — | — | — | — | — | 3·8 | ? | 7 | ? |
| " " " " " | Bognor | — | — | — | — | — | — | — | — | — | — | — | 19·0 | ? | 35 | ? |
| " " " 21st, " | Clifton | 55 | 38 | 48·3 | 43·4 | 48·6 | + 0·2 | 46 | 0 | 7 | 2·44 | +1·65 | — | — | — | — |
| " " " 28th, " | Cranley | 52 | 28 | 42·4 | 32·2 | 37·6 | − 0·8 | 1 | 36 | 1 | 0·12 | ? | — | — | — | — |

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 10.] *Third Series.* WEEK ENDING SATURDAY, MARCH 11TH, 1899 [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 56.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH - | 58 | 24 | 45·6 | 34·3 | 39·8 | 1 above | 10 | + 2 | 28 | - 7 | 68 | + 1 | 352 | - 44 |
| | 1. SCOTLAND, EAST - | 57 | 20 | 46·7 | 34·2 | 40·3 | 2 above | 13 | + 1 | 29 | - 9 | 73 | - 14 | 403 | - 23 |
| | 2. ENGLAND, N.E. - | 58 | 25 | 48·3 | 33·2 | 40·4 | 1 above | 18 | + 5 | 32 | + 2 | 142* | + 58 | 277 | - 96 |
| | 3. ENGLAND, EAST - | 63 | 20 | 49·3 | 30·2 | 39·5 | 1 below | 20 | + 2 | 45 | +10 | 188 | + 83 | 271 | -155 |
| | 4. MIDLAND COUNTIES | 60 | 18 | 49·3 | 30·7 | 39·8 | 0 (average) | 20 | + 3 | 43 | + 9 | 191 | + 80 | 316 | -106 |
| | 5. ENGLAND SOUTH - | 58 | 22 | 49·0 | 32·9 | 40·7 | 1 below | 20 | 0 | 35 | + 8 | 238* | +109 | 187* | -153 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST - | 55 | 23 | 46·8 | 37·0 | 41·8 | 2 above | 13 | + 1 | 20 | - 7 | 112 | + 12 | 260 | - 42 |
| | 7. ENGLAND, N.W. - | 58 | 24 | 47·8 | 35·2 | 41·3 | 1 above | 16 | + 3 | 26 | 0 | 170 | + 77 | 216 | - 96 |
| | 8. ENGLAND, S.W. - | 59 | 21 | 48·9 | 34·5 | 41·5 | 1 below | 19 | - 1 | 30 | + 8 | 242 | + 83 | 160 | - 94 |
| | 9. IRELAND, NORTH - | 55 | 21 | 47·9 | 35·4 | 41·5 | 0 (average) | 17 | + 1 | 26 | + 3 | 150 | + 16 | 236 | - 27 |
| | 10. IRELAND, SOUTH - | 59 | 22 | 50·1 | 36·1 | 42·9 | 0 (average) | 31 | + 8 | 17 | 0 | 241 | + 39 | 171 | - 20 |
| | —CHANNEL ISLANDS- | 54 | 31 | 50·5 | 38·7 | 44·4 | 0 (average) | 31 | + 7 | 9 | 0 | 396 | +178 | 51 | - 64 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 56.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH - | 6 | 14 | 5 more | 46 | - 5 | 10·4 | - 1·0 | 11 | - 9 | 14 | -13 | 130 | + 25 | 21 | + 4 |
| | 1. SCOTLAND, EAST - | 5 | 6 | 1 more | 42 | + 3 | 6·5 | + 0·5 | 10 | -12 | 13 | -16 | 142 | + 9 | 24 | + 2 |
| | 2. ENGLAND, N.E. - - | 2 | 2 | 2 less | 37 | 0 | 3·8 | - 0·4 | 18 | - 4 | 23 | - 5 | 144 | + 10 | 23 | + 2 |
| | 3. ENGLAND, EAST | 2 | 1 | 2 less | 36 | - 1 | 3·7 | - 0·5 | 48 | +24 | 61 | +29 | 260 | + 94 | 39 | +15 |
| | 4. MIDLAND COUNTIES | 2 | 2 | 1 less | 37 | + 2 | 6·4 | + 1·5 | 38 | +18 | 48 | +22 | 193 | + 63 | 32 | +10 |
| | 5. ENGLAND, SOUTH - | 1 | 2 | 2 less | 33 | - 2 | 5·6 | + 0·1 | 46 | +23 | 58 | +27 | 248 | + 92 | 38 | +14 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST - | 6 | 8 | 1 more | 46 | + 3 | 10·3 | - 0·7 | 13 | - 7 | 17 | -10 | 125 | + 3 | 20 | 0 |
| | 7. ENGLAND, N.W. - | 4 | 4 | 0 (average) | 42 | + 3 | 7·5 | + 1·4 | 27 | + 4 | 35 | + 4 | 175 | + 37 | 27 | + 6 |
| | 8. ENGLAND, S.W. - - | 4 | 3 | 3 less | 40 | 0 | 11·5 | + 3·5 | 38 | +12 | 48 | +13 | 213 | + 43 | 33 | + 7 |
| | 9. IRELAND, NORTH - | 6 | 6 | 0 (average) | 50 | + 5 | 7·2 | - 0·1 | 25 | + 5 | 33 | + 7 | 169 | + 34 | 27 | + 5 |
| | 10. IRELAND, SOUTH - | 4 | 6 | 0 (average) | 43 | + 1 | 11·0 | + 2·8 | 25 | + 2 | 32 | + 1 | 185 | + 25 | 29 | + 4 |
| | — CHANNEL ISLANDS- | 3 | 5 | 1 less | 39 | - 6 | 7·9 | + 1·0 | 42 | +16 | 53 | +19 | 232 | + 53 | 37 | + 8 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this week was again fair and dry generally, but rain fell rather frequently in the extreme north and north-west, and about the middle of the week it extended to all other parts of the Kingdom for a time.

*Temperature* did not differ much from the mean, but was slightly above it in the northern districts and a little below it in the south, east, and south-west of England; elsewhere it was just equal to the normal. The highest of the maxima were registered towards the end of the period, when they ranged from 63° in England E. and 60° in the Midland Counties to 54° in the Channel Islands. The lowest of the minima were recorded during the early part of the week, and ranged from 18° in the Midland Counties, 20° in Scotland E. and England E., and 21° in England S.W. and Ireland N. to 25° in England N.E., and 31° in the Channel Islands.

*Rainfall* exceeded the mean in the Scotch districts and just equalled it in England N.W. and over Ireland; elsewhere there was again a deficit.

*Bright Sunshine* was much in excess of the mean over the greater part of England, and to a less extent in Ireland also, but over Scotland there was a considerable deficit. The percentage of the possible duration ranged from 61 in England E., 58 in England S., and 53 in the Channel Islands to 23 in England N.E. and to between 13 and 17 in Scotland.

*Barometer and Wind.*—At the commencement of the week the centre of an anticyclone lay directly over our Islands, the winds being moderate from South-West and West in the north, and from East and North-East in the south. By Monday morning, however, a depression had approached our north-west coasts, the wind had increased from South-West at the northern and western stations, and the anticyclone had moved south-eastwards to Germany. This latter system soon after dispersed, while depressions from the Atlantic gradually extended more over the United Kingdom. On the 9th the centre of a depression lay over Scotland, and a secondary over our south-west coasts. Both these subsequently filled up quickly, the wind shifted to the Westward, and another anticyclone advanced over the southern parts of our Islands from the South-Eastward.

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613 | 70 3 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 55 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 46 | 24 | 43·4 | 32·4 | 37·7 | − 0·2 | 4 | 33 | 7 | 1·61 | + 0·96 | * | * | * | * |
| | Stornoway | 51 | 29 | 47·3 | 34·4 | 40·7 | + 1·7 | 15 | 29 | 5 | 1·13 | + 0·28 | 18·6 | − 1·9 | 24 | − 4 |
| | Wick | 49 | 29 | 45·9 | 33·0 | 39·3 | + 0·6 | 11 | 33 | 4 | 0·56 | + 0·11 | * | * | * | * |
| | Lairg Ⓢ | 58 | 24 | 47·7 | 32·1 | 39·7 | + 2·5 | 16 | 37 | 5 | 0·35 | − 0·35 | * | * | * | * |
| | Glencarron Ⓢ | 48 | 28 | 44·8 | 34·5 | 39·5 | + 2·2 | 8 | 27 | 6 | 1·89 | + 0·43 | * | * | * | * |
| | Fort Augustus Ⓢ | 52 | 30 | 45·7 | 36·2 | 40·8 | + 1·8 | 10 | 22 | 7 | 1·20 | + 0·40 | 4·9 | − 9·6 | 6 | −13 |
| | Fort William Ⓢ | 51 | 33 | 44·7 | 37·6 | 41·1 | + 1·3 | 8 | 17 | 7 | 2·84 | + 1·32 | 1·1 | −17·6 | 1 | −24 |
| 1. SCOTLAND E. | Nairn | 57 | 29 | 49·0 | 32·6 | 40·6 | + 1·6 | 20 | 36 | 4 | 0·53 | + 0·09 | * | * | * | * |
| | Aberdeen | 56 | 30 | 47·1 | 36·0 | 41·4 | + 2·5 | 14 | 24 | 4 | 0·22 | − 0·28 | 9·5 | −14·1 | 12 | −20 |
| | Braemar Ⓢ | 50 | 20 | 43·3 | 32·7 | 37·8 | + 2·6 | 4 | 32 | 5 | 0·56 | − 0·04 | 12·7† | −10·5† | 16† | −15† |
| | Ochtertyre Ⓢ | 56 | 32 | 47·0 | 35·3 | 41·0 | + 2·3 | 14 | 26 | 6 | 1·06 | + 0·46 | * | * | * | * |
| | Leith | 55 | 32 | 48·4 | 35·9 | 42·0 | + 1·7 | 18 | 17 | 3 | 0·22 | − 0·06 | * | * | * | * |
| | Marchmont Ⓢ | 53 | 29 | 45·3 | 33·1 | 39·0 | + 0·9 | 9 | 32 | 5 | 0·68 | + 0·16 | 6·5 | −14·8 | 8 | −20 |
| 2. ENGLAND, N.E. | Alnwick Castle | ? | 28 | ? | 33·9 | ? | ? | ? | ? | 2 | 0·33 | − 0·15 | * | * | * | * |
| | Durham | 56 | 25 | 47·7 | 33·0 | 40·1 | + 1·3 | 16 | 34 | 2 | 0·09 | − 0·33 | 15·7 | − 6·3 | 20 | − 9 |
| | Shields | 57 | 29 | 48·6 | 34·0 | 41·1 | + 1·2 | 18 | 31 | 2 | 0·11 | − 0·24 | * | * | * | * |
| | Scarborough Ⓜ | 53 | 31 | 47·3 | 32·2 | 39·5 | − 0·6 | 15 | 36 | 1 | 0·17 | − 0·20 | 28·7 | ? | 37 | ? |
| | York | 58 | 25 | 49·4 | 31·0 | 39·9 | − 0·2 | 21 | 42 | 3 | 0·32 | − 0·03 | 18·4 | − 2·4 | 24 | − 3 |
| | Spurn Head | 56 | 32 | 48·3 | 35·3 | 41·6 | + 1·7 | 18 | 26 | 2 | 0·10 | − 0·15 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 60 | 22 | 49·1 | 29·6 | 39·1 | − 0·6 | 20 | 47 | 1 | 0·24 | − 0·11 | 43·1 | +20·1 | 55 | +25 |
| | Yarmouth | 60 | 30 | 47·9 | 32·9 | 40·2 | + 0·9 | 17 | 35 | 1 | 0·05 | − 0·30 | * | * | * | * |
| | Geldeston | 63 | 23 | 50·6 | 30·0 | 40·0 | 0·0 | 24 | 46 | 1 | 0·05 | − 0·25 | 51·3 | +27·1 | 65 | +33 |
| | Cambridge | 62 | 20 | 52·3 | 26·9 | 39·2 | − 1·4 | 29 | 51 | 1 | 0·05 | − 0·24 | 50·3 | +27·1 | 64 | +32 |
| | Felixstowe | 55 | 29 | 47·7 | 33·4 | 40·3 | − 0·3 | 16 | 32 | 1 | 0·06 | ? | 47·9 | ? | 61 | ? |
| | Rothamsted | 54 | 20 | 48·2 | 28·1 | 37·9 | − 1·9 | 17 | 51 | 4 | 0·27 | − 0·10 | 44·6 | +21·6 | 56 | +25 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 60 | 25 | 51·0 | 31·4 | 40·9 | + 0·8 | 25 | 41 | 3 | 0·22 | − 0·08 | * | * | * | * |
| | Loughborough | 59 | 23 | 50·4 | 30·3 | 40·1 | − 0·6 | 24 | 45 | 2 | 0·17 | − 0·15 | * | * | * | * |
| | Stamford (Duddington) | 59 | 21 | 49·4 | 30·3 | 39·6 | − 0·7 | 21 | 44 | 2 | 0·22 | − 0·06 | * | * | * | * |
| | Cheadle Ⓜ | 57 | 27 | 47·5 | 31·9 | 39·5 | + 0·7 | 15 | 38 | 3 | 0·21 | − 0·26 | * | * | * | * |
| | Shirley (near Solihull) | 59 | 23 | 47·6 | 31·3 | 39·2 | − 1·1 | 16 | 40 | 3 | 0·26 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 60 | 22 | 49·8 | 31·8 | 40·5 | + 0·7 | 22 | 39 | 3 | 0·37 | − 0·05 | 37·9 | +15·9 | 49 | +20 |
| | Hereford Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 55 | 18 | 48·6 | 28·0 | 38·0 | − 1·7 | 18 | 52 | 2 | 0·20 | − 0·23 | 42·7 | +19·6 | 54 | +23 |
| | Oxford | 59 | 24 | 50·3 | 30·9 | 40·3 | − 0·5 | 23 | 43 | 1 | 0·08 | − 0·25 | 44·8 | +22·3 | 57 | +28 |
| 5. ENGLAND, S. | London | 56 | 25 | 50·9 | 30·9 | 40·6 | − 1·0 | 25 | 43 | 1 | 0·05 | − 0·25 | 29·5† | +14·7† | 37† | +17† |
| | Cranley Ⓜ | 57 | 22 | 49·4 | 29·8 | 39·3 | − 2·2 | 21 | 46 | 1 | 0·15 | ? | * | * | * | * |
| | Dungeness | 52 | 39 | 48·9 | 35·0 | 41·7 | + 1·1 | 19 | 28 | 1 | 0·08 | − 0·25 | * | * | * | * |
| | Hastings (St. Leonards) | 50 | 31 | 46·8 | 35·5 | 41·0 | − 0·1 | 13 | 25 | 2 | 0·19 | − 0·21 | 52·2 | +24·9 | 66 | +31 |
| | Southampton | 58 | 26 | 51·2 | 32·0 | 41·3 | − 0·9 | 26 | 39 | 1 | 0·34 | − 0·10 | 43·4 | +18·4 | 55 | +21 |
| | Hurst Castle | 54 | 28 | 48·3 | 34·0 | 40·9 | − 0·6 | 18 | 31 | 1 | 0·26 | − 0·11 | * | * | * | * |
| | Shaftesbury Ⓜ | 52 | 29 | 47·7 | 33·3 | 40·3 | + 0·3 | 16 | 33 | 1 | 0·10 | − 0·39 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 52 | 32 | 46·6 | 36·4 | 41·4 | + 0·6 | 13 | 22 | 6 | 1·46 | + 0·10 | * | * | * | * |
| | Glasgow | 50 | 32 | 45·6 | 37·6 | 41·5 | + 2·0 | 10 | 17 | 6 | 0·40 | − 0·12 | 6·4 | − 9·6 | 8 | −14 |
| | Ardrossan | 48 | 34 | 45·9 | 38·9 | 42·3 | + 1·8 | 15 | 9 | 5 | 0·35 | − 0·13 | * | * | * | * |
| | Glenlee Ⓢ | 53 | 23 | 47·8 | 33·1 | 40·2 | + 0·6 | 16 | 33 | 6 | 1·25 | + 0·45 | * | * | * | * |
| | Douglas (Isle of Man) | 55 | 28 | 47·9 | 39·2 | 43·4 | + 2·5 | 22 | 8 | 5 | 0·62 | + 0·05 | 20·4 | − 4·2 | 26 | − 6 |
| 7. ENGLAND, N.W. | Stonyhurst | 54 | 24 | 45·7 | 34·2 | 39·8 | + 0·3 | 10 | 29 | 4 | 0·87 | + 0·15 | 18·9 | − 1·2 | 24 | − 3 |
| | Blackpool Ⓜ | 55 | 24 | 48·1 | 34·4 | 41·1 | + 1·2 | 17 | 30 | 4 | 0·38 | − 0·04 | 19·5 | − 0·5 | 25 | − 2 |
| | Manchester (Prestwich) | 58 | 25 | 48·2 | 33·9 | 40·8 | + 1·1 | 17 | 31 | 4 | 0·37 | − 0·11 | 20·7 | ? | 27 | ? |
| | Liverpool Obsy. (Bidston) | 57 | 30 | 48·1 | 35·3 | 41·5 | + 0·1 | 17 | 26 | 3 | 0·36 | + 0·04 | 23·4 | ? | 30 | ? |
| | Llandudno Ⓜ | 57 | 29 | 49·1 | 35·7 | 42·2 | − 0·1 | 28 | 18 | 3 | 0·20 | − 0·19 | 37·2 | +15·4 | 48 | +19 |
| | Holyhead | 55 | 31 | 47·6 | 37·7 | 42·5 | + 0·3 | 22 | 12 | 6 | 0·48 | 0·00 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 59 | 25 | 50·9 | 31·6 | 41·0 | − 0·5 | 25 | 41 | 5 | 0·35 | − 0·45 | * | * | * | * |
| | Pembroke | 50 | 33 | 47·3 | 38·7 | 42·9 | + 0·4 | 20 | 9 | 3 | 0·18 | − 0·32 | 33·0 | + 6·4 | 42 | + 8 |
| | Clifton | 55 | 29 | 49·3 | 33·7 | 41·3 | − 0·5 | 20 | 33 | 2 | 0·42 | − 0·04 | * | * | * | * |
| | Arlington (N. Devon) | 52 | 28 | 47·3 | 33·3 | 40·1 | − 0·7 | 15 | 33 | 5 | 0·37 | − 0·47 | * | * | * | * |
| | Cullompton Ⓜ | 58 | 21 | 50·9 | 29·8 | 40·0 | − 2·8 | 25 | 46 | 3 | 0·20 | − 0·45 | 39·8 | +15·6 | 50 | +18 |
| | Falmouth | 52 | 32 | 48·6 | 37·6 | 42·9 | − 1·0 | 25 | 12 | 3 | 0·26 | − 0·54 | 35·2 | + 8·2 | 45 | +10 |
| | Plymouth | 53 | 26 | 48·4 | 34·8 | 41·4 | − 1·5 | 18 | 28 | 5 | 0·34 | − 0 21 | 37·8 | +11·1 | 48 | +13 |
| | Prawle Point | 53 | 32 | 48·4 | 36·4 | 42·2 | + 0·1 | 25 | 16 | 2 | 0·27 | − 0·13 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 52 | 34 | 47·0 | 38·7 | 42·7 | + 0·6 | 19 | 9 | 6 | 0·59 | ? | * | * | * | * |
| | Londonderry | | | | | | | | | | | | * | * | * | * |
| | Edenfel (Omagh) | 52 | 21 | 46·4 | 33·1 | 39·6 | − 0·2 | 12 | 33 | 5 | 0·45 | − 0·05 | * | * | * | * |
| | Belmullet | 52 | 30 | 48·6 | 37·0 | 42·6 | − 0·8 | 25 | 14 | 6 | 1·20 | + 0·32 | * | * | * | * |
| | Markree Castle | 55 | 21 | 49·0 | 34·9 | 41·7 | + 0·9 | 20 | 28 | 6 | 0·67 | + 0·02 | 25·5 | + 4·8 | 33 | + 6 |
| | Armagh | 52 | 23 | 47·5 | 34·8 | 41·0 | + 0·5 | 15 | 28 | 6 | 0·22 | − 0·30 | 24·8 | + 4·8 | 32 | + 6 |
| | Donaghadee | 55 | 29 | 49 0 | 33·9 | 41·2 | − 0·3 | 20 | 32 | 6 | 0·15 | − 0·25 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 57 | 28 | 50·2 | 37·9 | 43·9 | + 1·3 | 31 | 11 | 4 | 0·26 | − 0·17 | 32·1 | + 8·8 | 41 | +10 |
| | Parsonstown | 54 | 22 | 50·1 | 30·6 | 40·1 | − 1·3 | 23 | 44 | 5 | 0·39 | − 0·09 | 20·3 | − 1·7 | 26 | − 2 |
| | Kilkenny | 59 | 24 | 49·9 | 32·0 | 40·7 | − 1·9 | 22 | 39 | 4 | 0·31 | − 0·16 | * | * | * | * |
| | Roche's Point | 54 | 30 | 50·3 | 37·4 | 43·7 | − 0·1 | 31 | 13 | 2 | 0·19 | − 0·61 | * | * | * | * |
| | Valencia | 54 | 30 | 49·9 | 38·1 | 43·8 | − 1·1 | 29 | 11 | 6 | 1·19 | + 0·21 | 23·3 | − 1·7 | 29 | − 4 |
| | Killarney | 56* | 24 | 50·6 | 36·7 | 43·4 | − 0·9 | 32 | 15 | 4 | 1·03 | ? | * | * | * | * |
| | Foynes | 53 | 35 | 49·6 | 39·9 | 44·6 | + 1·8 | 27 | 6 | 5 | 0·83 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 53 | 39 | 50·0 | 40·7 | 45·2 | − 0·2 | 28 | 4 | 2 | 0·59 | + 0·06 | 33·3 | ? | 42 | ? |
| | Jersey | 54 | 31 | 50·9 | 36·6 | 43·5 | − 0·6 | 33 | 15 | 3 | 0·33 | − 0·18 | 48·6 | +18·6 | 62 | +22 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

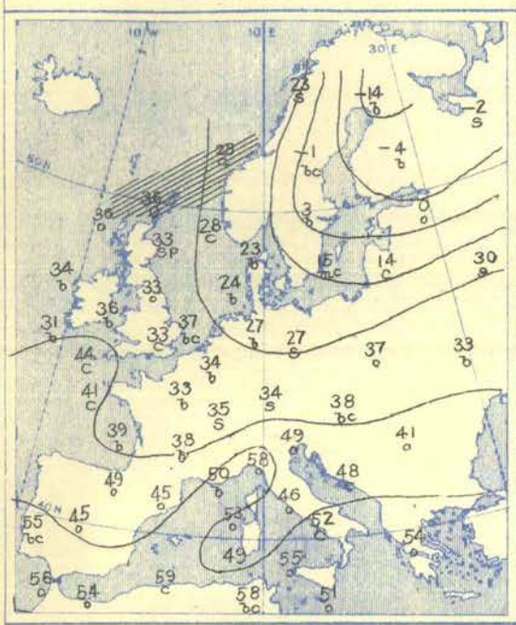
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

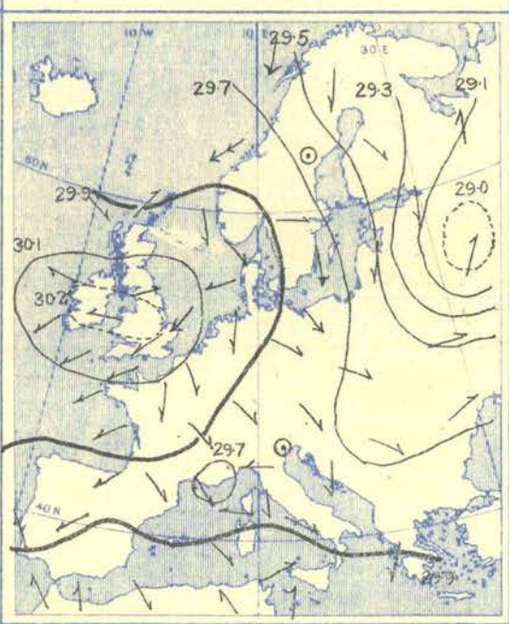
Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 5th March.

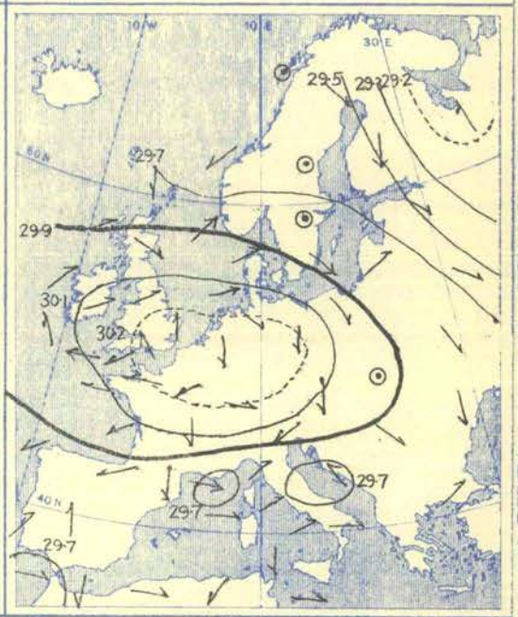
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over western and northern Europe as a whole, but dull in Scotland, with snow at Wick and Aberdeen, as well as at Bödo. Dull in most of the eastern, central, and southern countries, with rain at Vienna and Florence, and snow at many of the German stations, as well as at Belfort, Moscow, and Archangel. Rain falling later in the extreme north and north-west of our Islands, and also over Spain and Italy.

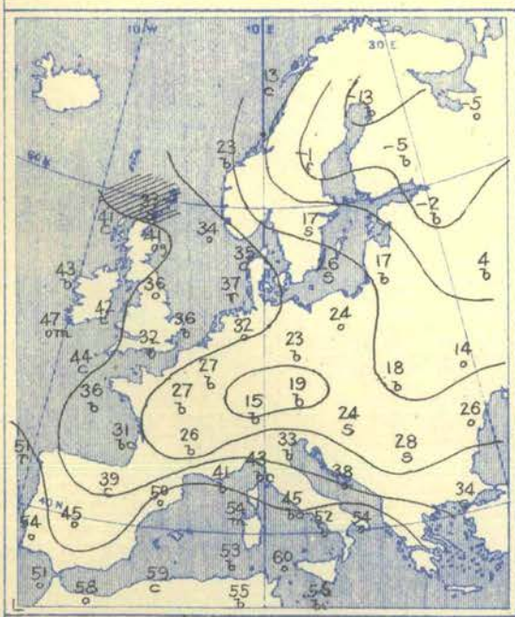
*Temperature* risen over the northern parts of the United Kingdom, and also in Russia and Austria; fallen in most other localities. Morning readings highest, 61° at Oporto, 59° at Algiers, and 58° at Leghorn and La Calle; above 50° at most of the Mediterranean and Spanish coast stations. Lowest, -14° Fahr. at Uleaborg, -13° at Haparanda, and -4° at Kuopio; considerably below the freezing point over northern Europe generally, as well as in the central parts of England and Ireland. Daily maxima below 45° at several of our own northern stations, but thermometer exceeding that point in the central and southern districts. Exceeding 60° in many parts of southern Europe, the highest reading of all being 68° at Palermo. Sharp frost occurring in the east and south-east of England at night.

*Wind* light from the Northward or North-Eastward over Spain, France, and the south of our Islands; moderate to strong from the South-Westward over the northern parts of our Islands. Northerly or North-Westerly over Scandinavia, Denmark, Germany, and western Russia, as well as in Italy; calm in Austria. Subsequently veering to the South-Eastward in the southern parts of the United Kingdom; backing to the South-Westward on the eastern shores of the North Sea.

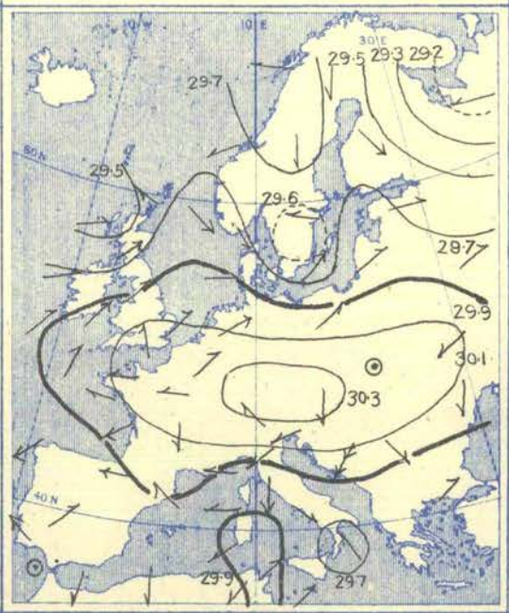
*Barometer* highest, 30·2 ins. and upwards over the central parts of England and Ireland; 30·0 ins. and upwards in an anticyclone covering the greater part of southern Europe and also in another system over Algeria. Lowest, 29·0 ins. and less in a depression over central Russia; 29·7 ins. and less in a small disturbance over the Gulf of Genoa. Anticyclone subsequently moving eastwards; depression over Russia travelling away to the north-eastward.

## Monday, 6th March.

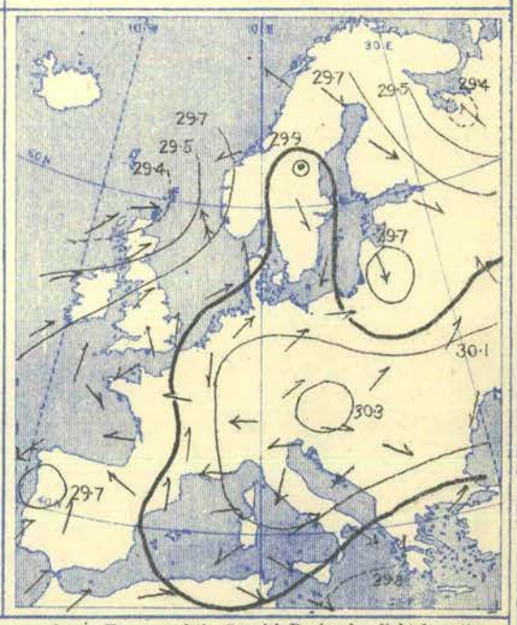
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the greater part of England, France, Germany and northern Italy, as well as in the northern parts of Russia and Scandinavia. Cloudy or dull in most other localities, with rain at Malin Head, Corunna and Fanö, and with snow in Austria and the south of Russia, as well as in the south of Sweden and at Copenhagen. A little rain falling later at several of our own western and northern stations, and considerable amounts in the north of Spain. Solar halos seen in the south of England.

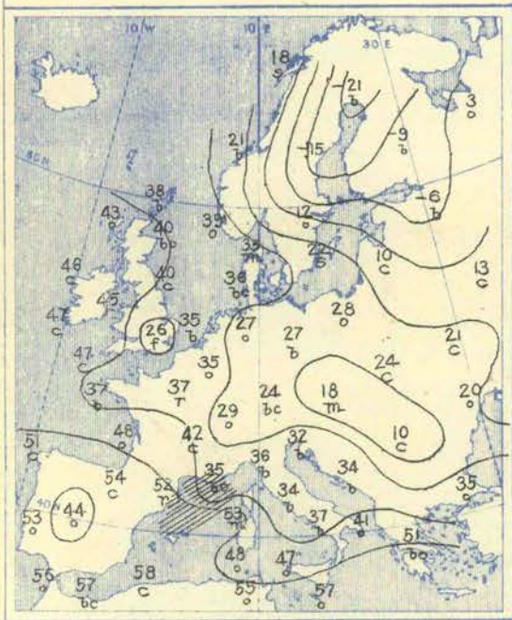
*Temperature* risen over our Islands and the northern parts of the Continent, fallen elsewhere. Morning readings highest, 60° at Palermo, 59° at Algiers, 58° at Oran, and 56° at Malta; above 50° at most of the Mediterranean and Spanish coast stations. Lowest, -13° Fahr. at Uleaborg, -6° at Haparanda, and -5° at Archangel and Kuopio; considerably below the freezing point in most parts of northern, eastern and central Europe, and slightly below it over central England. Rising during day to 45° and upwards in most parts of the United Kingdom; exceeding 50° in the west and south of France, and exceeding 60° in many parts of southern Europe. Sharp frost occurring over the inland parts of England at night.

*Wind* light to fresh from the Eastward over France and the Spanish Peninsula; light from the South-Eastward over the central and southern parts of England, strong from the Southward or South-Westward on many parts of our own western and northern coasts; Northerly or North-Westerly over Finland, Sweden and the south of Norway; Westerly or South-Westerly over Denmark, north Germany, and the Baltic. Northerly over Austria and the south of Russia, and Easterly over the northern parts of Italy and the Adriatic, with a gale at Lesina; Southerly or South-Westerly over southern Italy. Moderating later in the west and north of our Islands.

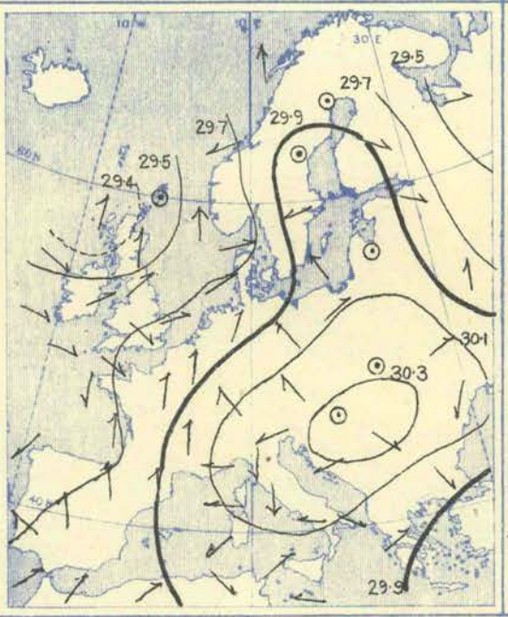
*Barometer* highest, 30·3 ins. and upwards over the southern parts of Germany, 30·1 ins. and upwards in an anticyclone covering all the more central parts of Europe. Lowest, 29·2 ins. and less in a depression over the White Sea; 29·5 ins. and less in another disturbance off the north-west of Scotland, 29·6 ins. and less in a third over the south of Sweden. Falling decidedly over western Europe during day, but general distribution of pressure remaining unchanged. Swedish depression moving south-eastwards.

## Tuesday, 7th March.

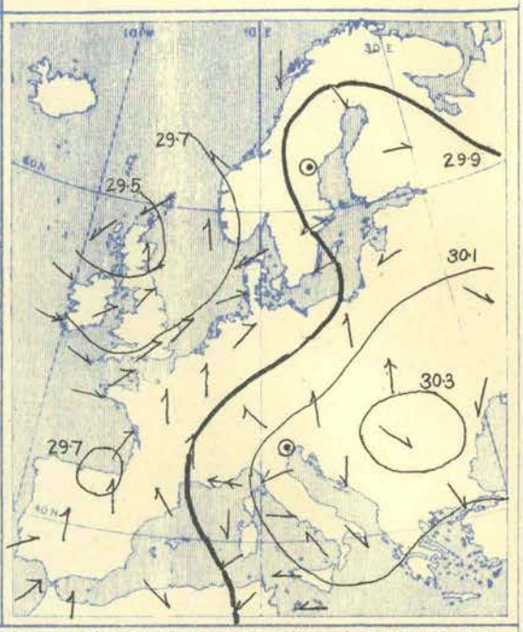
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning fine over the United Kingdom generally, but foggy at some of the English stations and showery on our extreme north-west coasts. Fine over Italy and the southern parts of Germany, as well as over Finland and the Gulf of Bothnia; cloudy or dull in most other parts of the Continent, with rain at many of the French stations and snow at Bodö, Wisby and Memel. Showers falling later at several of our western and northern stations, and heavy rain in the extreme south of France and the north of Spain.

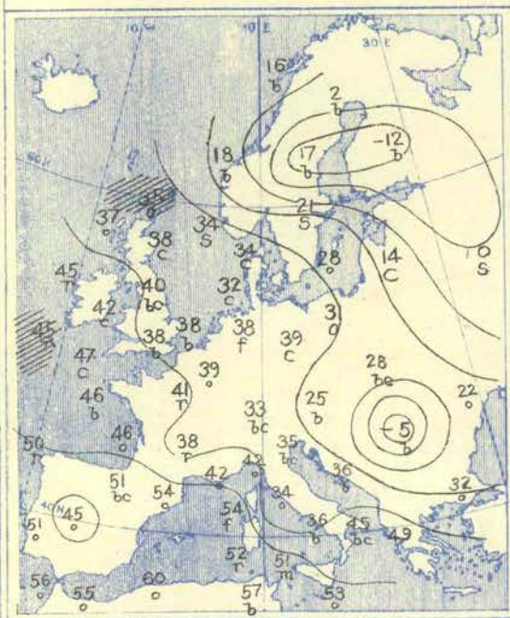
*Temperature* risen over Germany, France and the extreme west and south of our Islands, fallen elsewhere. Morning readings highest, 58° at Bilbao and Algiers, and 57° at Malta and Oran; above 50° at several of the Mediterranean and Spanish coast stations. Lowest, −21° Fahr. at Haparanda, −17° at Uleaborg, and −15° at Hernösand. Considerably below the freezing point over northern, eastern and central Europe generally, and also over the inland parts of the south of England. Rising during day to 50° or slightly above it in many parts of the United Kingdom; exceeding 55° in the west and south of France, and reaching 63° at Biarritz; exceeding 60° also at some of the Spanish stations.

*Wind* light to moderate from the Westward over Ireland and the south-west of England, and from the Southward over the northern parts of Great Britain and the western parts of the Continent. Cyclonic circulation of very light breezes reported over the English Channel. Calm in the Gulf of Bothnia; Easterly in the south of Sweden, with a gale at Wisby; light from the North-Westward over northern Russia, variable in the south of that country and in Austria; South-Easterly in Germany; Easterly over northern Italy and the extreme south of France. Subsequently veering to the North-Westward in Ireland; no important change occurring elsewhere.

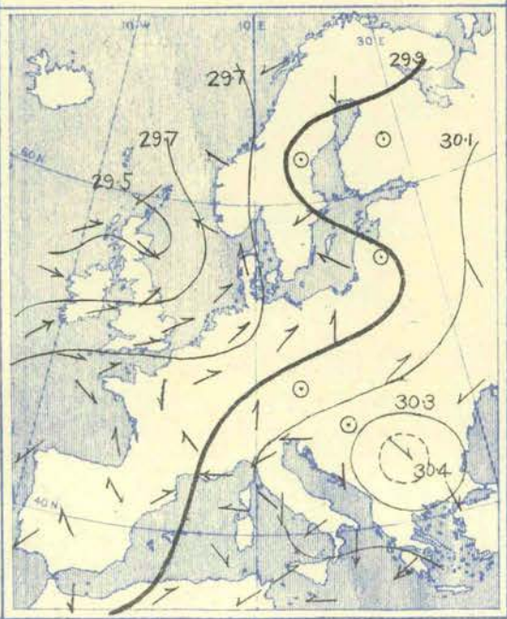
*Barometer* highest, 30·3 ins. and upwards in Austria; 30·0 ins. and upwards in an anticyclone covering the eastern parts of Europe generally. Lowest, 29·4 ins. and less in a shallow depression off the west of Scotland; 29·5 ins. and less in another disturbance over northern Russia. Scotch depression subsequently moving slowly eastwards, and barometer rising on our western coasts.

## Wednesday, 8th March.

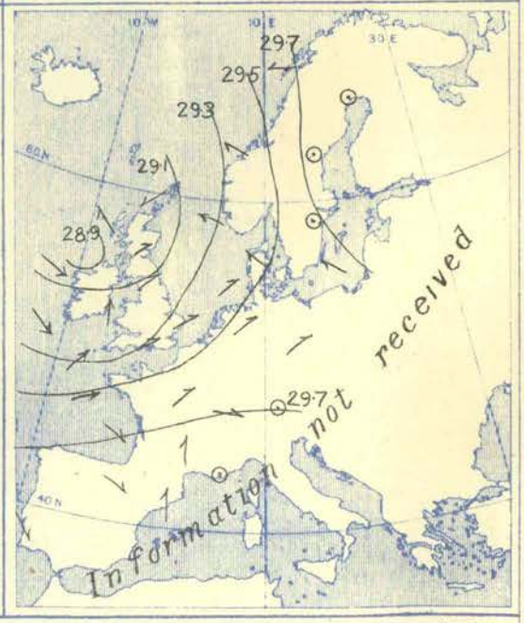
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.




*Weather* in morning fair or fine over the greater part of the United Kingdom, but dull at some of our western and northern stations, with rain at Belmullet. Fine over Austria, Italy, and Greece, and also over Finland and the north of Scandinavia; cloudy or dull in most other parts of the Continent, with rain at many of the French stations, and snow in the south of Scandinavia, as well as at Moscow. Rain falling later in most parts of western Europe—heavily in the west of Ireland. Solar halos seen at Jersey.

*Temperature* fallen a little in Ireland, Scotland, Norway, and Denmark, and more decidedly in Russia; risen in most other countries. Morning readings highest, 60° at Algiers, 58° at Oporto, and 57° at Tunis; above 50° at several of the Mediterranean and Spanish coast stations. Lowest, −17° Fahr. at Hernösand, −12° at Knopio, and −8° at Helsingfors, considerably below the freezing point over Scandinavia, Russia, and Austria generally, and slightly below it over central Scotland. Rising during day to 50°, or slightly above it, at many of our own central and southern stations; exceeding 50° also in the west and south of France, and reaching 61° at Biarritz.

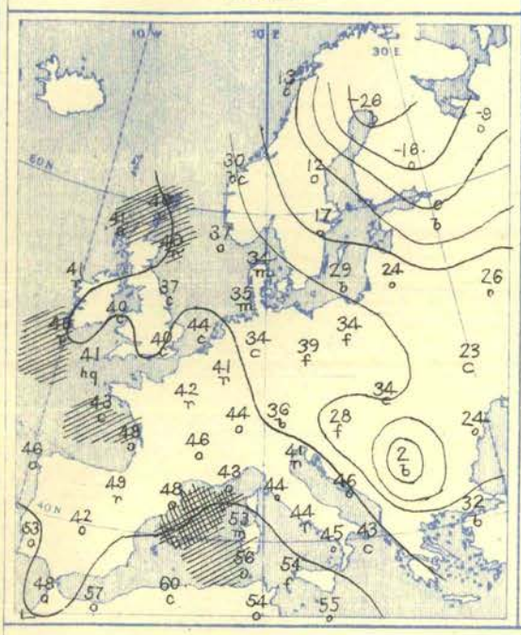
*Wind* South-Westerly to Westerly over our Islands; light to moderate in force generally, but strong in the west of Ireland. Light from the Southward over Germany and Denmark; Easterly in Scandinavia, and also in the north-east of Scotland. Variable in Russia and Austria; Northerly or North-Easterly in Italy and Spain; Easterly or South-Easterly in the south of France. Subsequently increasing to a moderate gale from the Southward or South-Westward on many parts of our western coasts, but veering to the North-Westward in Ireland.

*Barometer* highest, 30·4 ins. and upwards over eastern Austria; 30·1 ins. and upwards in an anticyclone covering the south-eastern parts of Europe generally. Lowest, 29·3 ins. and less in a shallow depression over the north of Scotland. New and deeper disturbance appearing later off our extreme north-west coasts, and barometer falling briskly in nearly all parts of the United Kingdom.

## Thursday, 9th March.

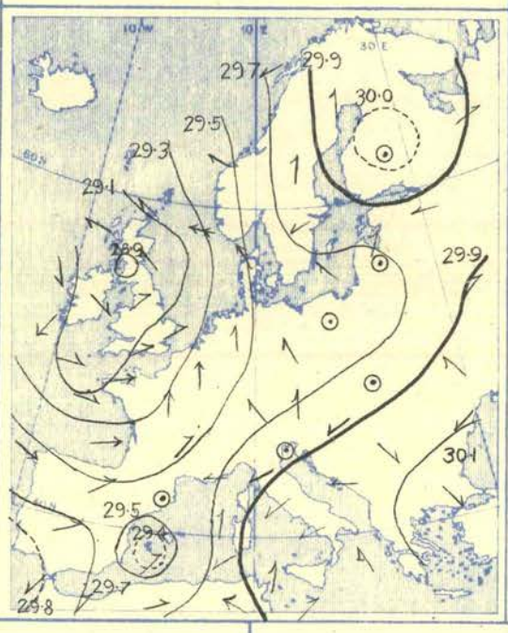
### Temperature and Weather.

8 a.m.

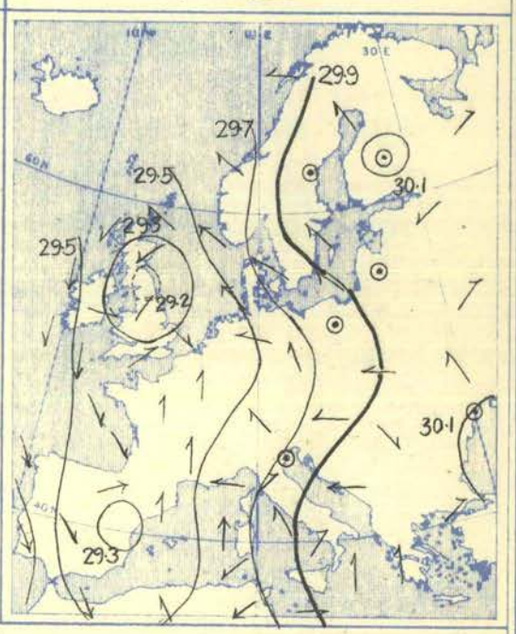


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning dull, squally, and showery over Scotland, Ireland, and the western parts of our Islands; changeable and unsettled over the United Kingdom and north-western Europe generally; not fair over any but the northern and extreme south-eastern parts of Europe. Showers later over all but the south-eastern parts of our Islands, and many parts of France; large quantities in the south of France; hail in the northern parts of England.

*Temperature* falling over the United Kingdom, risen over Sweden and the north-west of Russia, and in Italy. Morning readings highest, 60° at Algiers, 55° at Malta; 46° at Jersey, and 40° to 42° over the southern parts of England, and 38° to 41° in the south and west of Ireland; 41° in the extreme north of Scotland. Rising later to 50° in the south of our Islands and Paris, to 52° at Berlin, to 55° at Rochefort, 59° at Leghorn, 68° at Perpignan and Palermo, and 72° at Tunis, but considerable irregularities noticed.

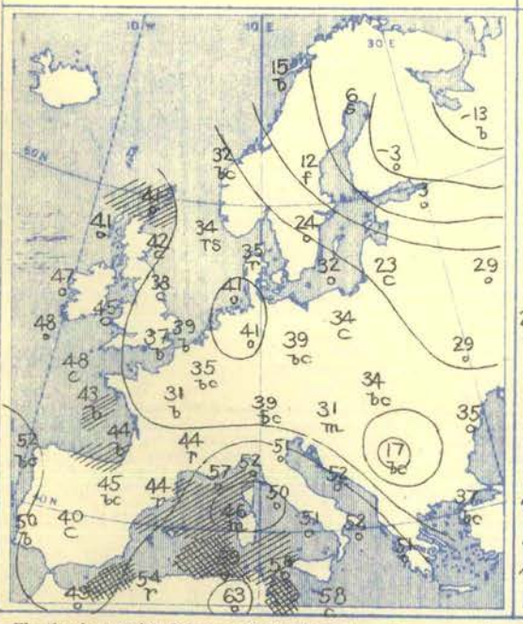
*Wind* light to fresh, and mainly from between North and East, over the southern and south-eastern parts of Europe, with a slight cyclonic circulation near Palma; moderate, but squally and cyclonic, over our Islands and their neighbourhood. Improving much over the south-east of England later, and clearing up at night; freshening from the Southward over the Mediterranean.

*Barometer* in morning highest, (1) 30·0 ins. and more to 29·8 ins. over northern Europe, and (2) exceeding 29·8 ins. in the south of Portugal; (3) 30·1 ins. to 29·8 ins. over south-eastern Europe. Lowest, 29·0 ins. and less in a depression lying over the northern parts of Great Britain, and below 29·1 ins. in a secondary system over the south-west of our Islands. Below 29·3 ins. in a small system near Palma. Rising throughout our Islands all day; depression in the north and its secondary both filling up gradually.

## Friday, 10th March.

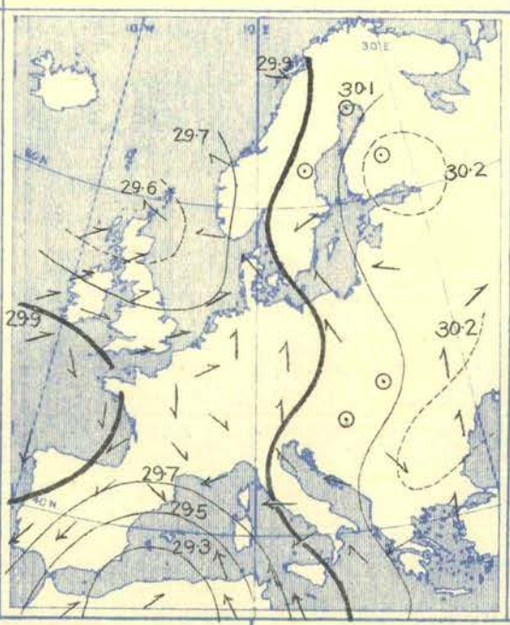
### Temperature and Weather.

8 a.m.

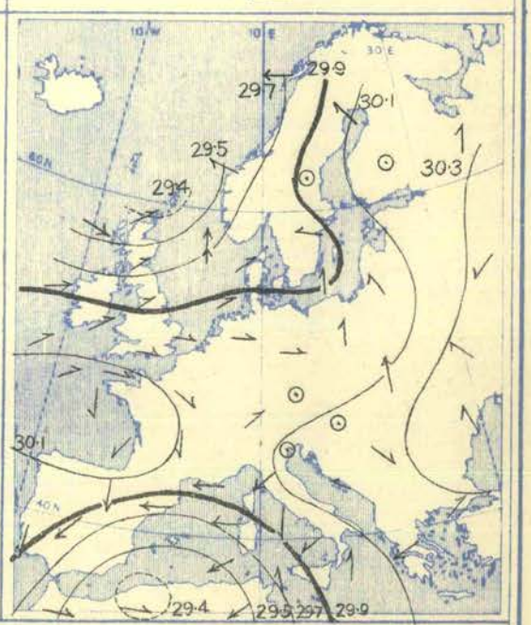


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over England, Belgium, the west and north of France, and the Spanish Peninsula, as well as in Austria and the west of Norway. Cloudy elsewhere, with rain at several stations in the south of France, the north-east of Spain, and Algeria, and snow at Turin, as well as in the south of Norway, and at Haparanda and Helsingfors. A little rain falling later at several of our own western and extreme northern stations, and larger quantities in many parts of Scandinavia, Denmark, Germany, and the east and south of France; thunderstorm at Cagliari. Aurora seen in the north of Scotland.

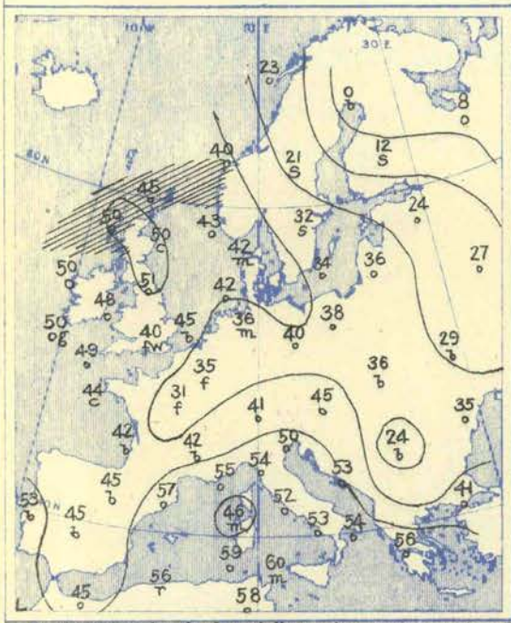
*Temperature* fallen over France, the Netherlands, and the east of England, risen in most other localities. Morning readings highest, 68° at La Calle, and 59° at Cagliari, Tunis, and Sfax; above 50° at most of the Mediterranean and Spanish coast stations. Lowest, −13° Fahr. at Archangel, −3° at Kuopio, +3° at St. Petersburg, and 6° at Haparanda; below the freezing point in most parts of Scandinavia, Russia, and Austria. Rising during day to 50° and upwards over the United Kingdom, and to 56° in London; exceeding 55° also in the west and south of France, and exceeding 60° in Spain and southern Italy.

*Wind* light to moderate from the Westward or South-Westward over the greater part of our Islands, but North-Westerly on our south-west coasts; light from the Northward or North-Eastward in the west of France, and fresh to strong from the same quarters over the Spanish Peninsula. Light from the Eastward or South-Eastward over the greater part of Scandinavia, Denmark, and Russia, and strong from the same quarters over the central parts of the Mediterranean. No important change occurring during day.

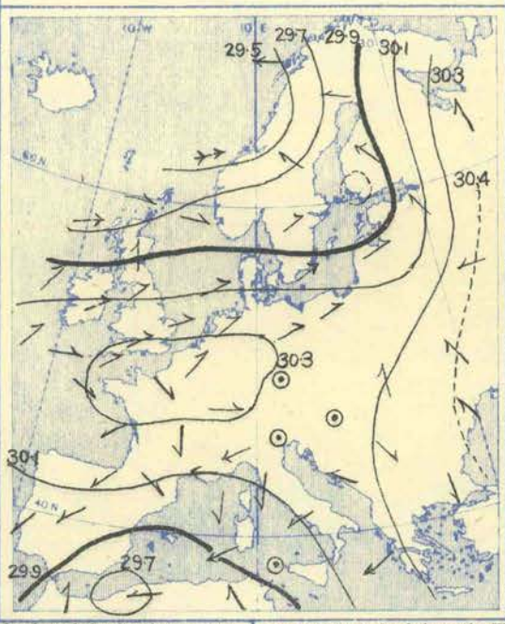
*Barometer* highest, 30·1 ins. to 30·2 ins. and upwards in an anticyclone lying over Russia, Turkey, and Greece; 29·9 ins. and upwards in a new system spreading from the Atlantic over the Bay of Biscay and the south-west of our Islands. Lowest, 29·3 ins. and less in a well-marked and rather deep depression over Algeria; 29·6 ins. and less in a shallow disturbance over the northern parts of Scotland and the North Sea. No decided change occurring later, but new depression approaching the north of Scotland in evening.

## Saturday, 11th March.

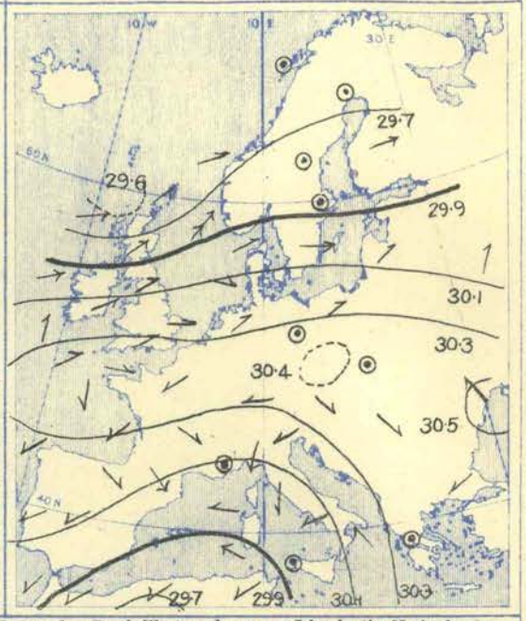
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over the greater part of our Islands and the Continent, with fog or mist at several of the more southern stations; rain at Wick and Christiansund, and snow in Finland and Sweden. Fine and bright on the east and south-east coasts of England, as well as over the Spanish Peninsula and the western and central parts of France. A little rain falling later in Ireland and the west and north of Scotland, and a larger quantity in the west of Norway, as well as in Algeria.

*Temperature* risen in most places—quickly over northern Russia. Morning readings highest, 60° at Palermo, 59° at Cagliari, and 58° at La Calle; above 50° at the Mediterranean and Spanish coast stations generally, and also at many places in the northern parts of Great Britain. Lowest, 0° zero at Haparanda, 8° at Archangel, 12° at Kuopio, and 21° at Hernösand; below the freezing point in most parts of Sweden and Russia. Rising during day to 55° and upwards over Great Britain as a whole, to 60° at Yarmouth, and to 62° at Cambridge; exceeding 60° also in most parts of southern Europe, and reaching 73° at Palermo.

*Wind* light to fresh from the Westward or South-Westward over our Islands, the Netherlands, north Germany, and Denmark, and strong from the same quarters in the western and southern parts of Scandinavia, with a gale at Christiansund; Easterly or South-Easterly over Russia and the northern parts of Scandinavia. Easterly or North-Easterly over France and southern Europe generally, with a moderate gale at Nice and Patras. Subsequently increasing in force from the South-Westward on our own northern coasts, and blowing a gale at night in the north-east of Scotland.

*Barometer* highest, 30·4 ins. and upwards over the central and southern parts of Russia; 30·2 ins. and upwards in an anticyclone covering the whole of eastern and central Europe, and extending westwards over France and the southern parts of our Islands. Lowest, 29·5 ins. and less in a large depression lying off the west of Norway; 29·7 ins. and less in a smaller and shallower disturbance over Algeria. New depression advancing rapidly eastwards at night towards our own extreme northern coasts, and barometer falling rather decidedly in the north and north-west of our Islands.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟶⟶⟶ = a heavy gale ⟶⟶ = a gale; ⟶⟶ = a fresh to strong breeze; ⟶⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the beginning of the week a large anticyclone covered western Europe, the winds being moderate to strong in force from the South-Westward in the more northern regions, but from the Northward or North-Eastward in the south, and the weather fair excepting in the north-east of Scotland, where snow showers were reported. Over eastern Europe the conditions were affected by a depression which was moving eastwards across Russia, while in many parts of the southern countries the weather was influenced by secondary systems lying over Austria and the Gulf of Genoa.

Later on the western anticyclone moved gradually in an east-south-easterly direction across Europe, while depressions advanced over our Islands from the Atlantic, the latter systems causing very strong Southerly and South-Westerly winds on many parts of our coasts, and rain in most districts. Towards the close of the week the depressions all dispersed and a new anticyclonic system advanced eastwards across France, Germany and the southern parts of our Islands, the wind being mostly light to fresh from the Westward and the weather fair. Over southern Europe a good deal of rain was caused in the latter part of the week by a depression which appears to have been formed over the north-east of Spain on the 8th, and which afterwards moved southwards and grew deeper. This disturbance also occasioned gales or very strong winds from between South and East at many of the Mediterranean stations.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 56.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 16·5 | ? | 21 | ? | WATERGATE (Emsworth) | 45·2 | ? | 57 | ? |
| STRATHPEFFER SPA | 14·8 | − 7·2 | 19 | −12 | BRIGHTON | 49·2 | +23·4 | 62 | +28 |
| EDINBURGH | 11·2 | − 7·5 | 15 | −10 | BOGNOR | 51·0* | ? | 65* | ? |
| MORPETH | 15·2 | ? | 19 | ? | EASTBOURNE | 54·5 | +29·5 | 69 | +35 |
| NEWCASTLE-ON-TYNE | 11·0 | ? | 14 | ? | VENTNOR HOSPITAL | 49·4 | ? | 63 | ? |
| OSWALDKIRK (Yorkshire) | 20·1 | − 1·9 | 26 | − 3 | SOUTHPORT | 28·4 | ? | 36 | ? |
| HOLLESLEY BAY | 51·8 | ? | 66 | ? | COLWYN BAY | | ? | | ? |
| SHEFFIELD | 30·5 | ? | 39 | ? | ABERDOVEY | 42·8* | | 55* | ? |
| WORKSOP | 30·8 | +10·7 | 39 | +12 | TENBY | | | | |
| THURCASTON (Leicestershire) | 39·6 | +20·3 | 51 | +25 | NEWQUAY | 33·6 | + 6·6 | 43 | + 7 |
| PLUMSTEAD COMMON | 34·9 | ? | 44 | ? | TORQUAY | 49·1* | +24·1 | 62* | +29 |
| MARGATE | 50·7 | +27·3 | 64 | +34 | GUERNSEY | 43·3* | +13·5 | 55* | +16 |
| WESTBOURNE (Emsworth) | 48·0* | +20·8 | 61* | +26 | | | | | |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 11.] *Third Series.* WEEK ENDING SATURDAY, MARCH 18TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 62.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 66 | 27 | 50·7 | 38·9 | 44·6 | 6 above | 31 | +22 | 9 | −26 | 99 | + 23 | 361 | − 70 |
| | 1. SCOTLAND, EAST | 68 | 23 | 54·3 | 36·1 | 44·9 | 6 above | 45 | +32 | 17 | −20 | 118 | + 18 | 420 | − 43 |
| | 2. ENGLAND, N.E. | 67 | 29 | 55·0 | 35·8 | 45·1 | 5 above | 48 | +33 | 17 | −14 | 190 | + 91 | 294 | −110 |
| | 3. ENGLAND, EAST | 62 | 26 | 52·2 | 32·9 | 42·2 | 1 above | 40 | +21 | 25 | − 9 | 228 | +104 | 296 | −164 |
| | 4. MIDLAND COUNTIES | 64 | 27 | 55·5 | 33·6 | 44·2 | 3 above | 51 | +31 | 24 | −10 | 242 | +111 | 340 | −116 |
| | 5. ENGLAND SOUTH | 63 | 28 | 53·4 | 37·5 | 45·3 | 3 above | 42 | +21 | 13 | −14 | 280 | +130 | 200 | −167 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 66 | 28 | 52·7 | 37·4 | 44·9 | 4 above | 40 | +27 | 13 | −14 | 152 | + 39 | 273 | − 56 |
| | 7. ENGLAND, N.W. | 61 | 31 | 53·0 | 38·9 | 45·8 | 4 above | 40 | +26 | 9 | −17 | 210 | +103 | 225 | −113 |
| | 8. ENGLAND, S.W. | 67 | 23 | 55·7 | 39·5 | 47·3 | 4 above | 48 | +28 | 7 | −15 | 290 | +111 | 167 | −109 |
| | 9. IRELAND, NORTH | 67 | 29 | 54·6 | 39·4 | 46·8 | 5 above | 45 | +28 | 7 | −16 | 195 | + 44 | 243 | − 43 |
| | 10. IRELAND, SOUTH | 68 | 30 | 55·9 | 40·4 | 47·9 | 4 above | 48 | +24 | 4 | −14 | 289 | + 63 | 175 | − 44 |
| | —CHANNEL ISLANDS | 61 | 40 | 54·7 | 44·3 | 49·3 | 4 above | 51 | +26 | 0 | − 9 | 447 | +204 | 51 | − 73 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 62.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 4 | 4 | 5 less | 50 | − 5 | 10·8 | − 1·5 | 29 | + 9 | 36 | +10 | 159 | + 35 | 23 | + 5 |
| | 1. SCOTLAND, EAST | 1 | less than ½ | 5 less | 43 | + 1 | 6·5 | 0·0 | 46 | +22 | 57 | +27 | 188 | + 31 | 28 | + 5 |
| | 2. ENGLAND, N.E. | 1 | less than ½ | 4 less | 38 | − 2 | 3·8 | − 0·8 | 48 | +25 | 58 | +30 | 192 | + 35 | 27 | + 5 |
| | 3. ENGLAND, EAST | 1 | less than ½ | 3 less | 37 | − 3 | 3·7 | − 0·8 | 37 | +13 | 45 | +15 | 297 | +108 | 40 | +15 |
| | 4. MIDLAND COUNTIES | 0 | — | 4 less | 37 | − 1 | 6·4 | + 1·1 | 34 | +13 | 41 | +15 | 227 | + 76 | 34 | +11 |
| | 5. ENGLAND, SOUTH | 0 | — | 4 less | 33 | − 4 | 5·6 | − 0·3 | 35 | + 7 | 43 | + 7 | 283 | + 99 | 38 | +13 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 2 | 1 | 7 less | 48 | + 1 | 10·4 | − 1·3 | 34 | +11 | 42 | +13 | 159 | + 14 | 23 | + 2 |
| | 7. ENGLAND, N.W. | 0 | — | 5 less | 42 | 0 | 7·5 | + 0·9 | 36 | +14 | 44 | +16 | 211 | + 51 | 29 | + 7 |
| | 8. ENGLAND, S.W. | 0 | — | 6 less | 40 | − 3 | 11·5 | + 2·9 | 40 | +11 | 48 | +11 | 253 | + 54 | 35 | + 8 |
| | 9. IRELAND, NORTH | 1 | less than ½ | 6 less | 51 | + 2 | 7·2 | − 0·7 | 36 | +14 | 44 | +17 | 205 | + 48 | 29 | + 7 |
| | 10. IRELAND, SOUTH | 1 | less than ½ | 6 less | 44 | − 1 | 11·0 | + 2·1 | 40 | +14 | 50 | +17 | 225 | + 39 | 32 | + 6 |
| | — CHANNEL ISLANDS | 0 | — | 5 less | 39 | − 9 | 7·9 | + 0.5 | 44 | +14 | 54 | +16 | 276 | + 67 | 40 | + 9 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was very fine and dry generally, but a good deal of fog prevailed at times over England, especially in London and its neighbourhood, and some slight rain fell occasionally in the extreme north of Scotland. At the close of the week snow began to fall on our north and east coasts.

*Temperature* was above the mean, the excess ranging from 1° in England E. to 6° in Scotland N. and E., and 5° in Ireland N. and England N.E. The highest of the maxima were recorded on rather irregular dates, and ranged from 68° in Scotland E. and Ireland S., and 67° in England N.E., England S.W., and Ireland N., to 61° in England N.W. and the Channel Islands. The lowest of the minima were registered during the latter half of the period, when they varied from 23° in England S.W. and Scotland E. to 31° in England N.W., and to 40° in the Channel Islands.

*Rainfall* was much less than the mean in all districts. Over the greater part of the Kingdom rain was either entirely absent or hardly appreciable.

*Bright Sunshine* was very prevalent generally and exceeded the mean in all districts. The percentage of the possible duration ranged from 58 in England N.E., 57 in Scotland E., and 54 in the Channel Islands to 41 in the Midland Counties, and to 36 in Scotland N. In London (owing to the prevalence of fogs locally) only 5 per cent. of the possible amount was recorded.

*Barometer and Wind.*—The distribution of barometric pressure continued anticyclonic until nearly the end of the period, with light Westerly winds in the west and north, and light Easterly airs or calms in the south-east and south. By Saturday morning, however, a large and deep depression had advanced from the north-westward across Scandinavia to the Baltic, and in the rear of this system the wind shifted to the Northward in all parts of the United Kingdom and blew with the force of a gale on the north-east coasts of Scotland.

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613 | 70 3 | 99.

# II.—DATA from which the SUMMARY on page 61 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Rainfall. Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 49 | 29 | 46·0 | 41·0 | 43·4 | + 5·3 | 14 | 3 | 5 | 0·39 | − 0·21 | * | * | * | * |
| | Stornoway | 54 | 34 | 49·9 | 38·6 | 44·1 | + 4·5 | 29 | 10 | 5 | 0·44 | − 0·40 | 25·3 | + 3·2 | 31 | + 2 |
| | Wick | 57 | 33 | 52·0 | 40·1 | 45·9 | + 6·8 | 35 | 5 | 3 | 0·15 | − 0·31 | * | * | * | * |
| | Lairg | 66 | 27 | 54·9 | 37·9 | 46·2 | + 8·4 | 47 | 11 | 4 | 0·18 | − 0·51 | * | * | * | * |
| | Glencarron | 57 | 30 | 48·7 | 37·8 | 43·1 | + 5·3 | 25 | 12 | 5 | 0·89 | − 0·57 | * | * | * | * |
| | Fort Augustus | 63 | 32 | 53·7 | 37·9 | 45·6 | + 6·2 | 42 | 11 | 3 | 0·06 | − 0·64 | 29·6 | +13·4 | 37 | +17 |
| | Fort William | 55 | 33 | 49·8 | 39·0 | 44·2 | + 4·0 | 28 | 8 | 3 | 0·56 | − 0·80 | 27·8 | + 7·0 | 34 | + 8 |
| 1. SCOTLAND E. | Nairn | 58 | 34 | 53·4 | 37·9 | 45·4 | + 5·8 | 41 | 11 | 0 | — | − 0·39 | * | * | * | * |
| | Aberdeen | 59 | 33 | 52·9 | 37·3 | 44·8 | + 5·0 | 39 | 13 | 3 | 0·13 | − 0·37 | 53·7 | +17·7 | 66 | +33 |
| | Braemar | 63 | 23 | 53·3 | 32·3 | 42·5 | + 6·4 | 44 | 27 | 1 | 0·04 | − 0·49 | 52·0† | +26·8† | 64† | +32† |
| | Ochtertyre | 68 | 25 | 57·1 | 35·0 | 45·7 | + 6·1 | 55 | 20 | 0 | — | − 0·60 | * | * | * | * |
| | Leith | 63 | 33 | 53·4 | 39·3 | 46·1 | + 5·2 | 40 | 8 | 0 | — | − 0·30 | * | * | * | * |
| | Marchmont | 64 | 31 | 55·7 | 34·7 | 44·9 | + 6·1 | 51 | 20 | 0 | — | − 0·54 | 48·0 | +25·2 | 59 | +30 |
| 2. ENGLAND, N.E. | Alnwick Castle | 64 | 30 | 54·8 | 35·0 | 44·6 | + 5·0 | 48 | 20 | 2 | 0·06 | − 0·45 | * | * | * | * |
| | Durham | 67 | 29 | 57·5 | 32·9 | 44·8 | + 5·0 | 58 | 25 | 1 | 0·02 | − 0·44 | 49·8 | +25·4 | 61 | +30 |
| | Shields | 62 | 32 | 55·3 | 36·3 | 45·5 | + 4·9 | 48 | 16 | 1 | 0·06 | − 0·33 | * | * | * | * |
| | Scarborough | 61 | 35 | 57·0 | 37·0 | 46·7 | + 5·8 | 54 | 14 | 1 | 0·07 | − 0·33 | 53·8 | ? | 66 | ? |
| | York | 60 | 29 | 55·6 | 35·3 | 45·2 | + 4·4 | 51 | 19 | 1 | 0·01 | − 0·37 | 43·4 | +20·6 | 53 | +24 |
| | Spurn Head | 56 | 34 | 50·0 | 38·4 | 44·0 | + 3·5 | 29 | 10 | 1 | 0·03 | − 0·24 | * | * | * | * |
| 3. ENGLAND, E. | Hillington | 60 | 29 | 53·3 | 32·9 | 42·8 | + 1·8 | 44 | 25 | 2 | 0·06 | − 0·31 | 42·3 | +17·6 | 52 | +21 |
| | Yarmouth | 54 | 32 | 47·0 | 36·9 | 41·8 | + 0·9 | 14 | 20 | 1 | 0·06 | − 0·33 | * | * | * | * |
| | Geldeston | 60 | 27 | 53·7 | 31·0 | 42·0 | + 0·9 | 33 | 31 | 2 | 0·04 | − 0·29 | 40·2 | +13·2 | 49 | +15 |
| | Cambridge | 62 | 26 | 56·7 | 30·0 | 43·0 | + 1·4 | 57 | 34 | 1 | 0·02 | − 0·28 | 39·0 | +12·9 | 48 | +14 |
| | Felixstowe | 59 | 31 | 48·7 | 34·0 | 41·1 | − 0·2 | 19 | 31 | 1 | 0·02 | ? | 33·0 | ? | 40 | ? |
| | Rothamsted | 59 | 28 | 53·5 | 32·5 | 42·7 | + 2·0 | 45 | 27 | 0 | 0·03‡ | − 0·37 | 35·8 | +10·0 | 44 | +11 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 61 | 28 | 55·3 | 33·4 | 44·0 | + 3·0 | 50 | 24 | 0 | — | − 0·35 | * | * | * | * |
| | Loughborough | 64 | 27 | 57·3 | 32·7 | 44·6 | + 3·1 | 57 | 26 | 0 | — | − 0·36 | * | * | * | * |
| | Stamford (Duddington) | 60 | 27 | 55·0 | 33·0 | 43·7 | + 2·5 | 50 | 25 | 0 | — | − 0·32 | * | * | * | * |
| | Cheadle | 59 | 30 | 54·8 | 36·4 | 45·3 | + 5·5 | 47 | 16 | 0 | — | − 0·50 | * | * | * | * |
| | Shirley (near Solihull) | 59 | 27 | 53·4 | 32·4 | 42·6 | + 1·8 | 45 | 27 | 0 | — | ? | * | * | * | * |
| | Churchstoke | 63 | 29 | 57·0 | 32·7 | 44·5 | + 4·0 | 57 | 26 | 0 | — | − 0·44 | ?41·2 | ?+17·0 | 50 | ?+20 |
| | Hereford | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 60 | 30 | 55·1 | 34·9 | 44·7 | + 4·2 | 49 | 20 | 0 | — | − 0·46 | 43·8 | +18·8 | 53 | +21 |
| | Oxford | 61 | 31 | 56·1 | 33·4 | 44·4 | + 2·7 | 53 | 24 | 0 | — | − 0·35 | 34·0 | + 9·0 | 41 | +19 |
| 5. ENGLAND, S. | London | 60 | 30 | 52·4 | 34·7 | 43·3 | + 1·0 | 40 | 20 | 0 | — | − 0·32 | 4·1† | − 13·4† | 5† | −17† |
| | Cranley | | | | | | | | | | | | * | * | * | * |
| | Dungeness | 53 | 28 | 50·6 | 35·6 | 42·9 | + 1·4 | 33 | 18 | 0 | 0·01‡ | − 0·39 | * | * | * | * |
| | Hastings (St. Leonards) | 57 | 35 | 52·0 | 37·9 | 44·7 | + 2·8 | 36 | 11 | 0 | — | − 0·42 | 39·6 | + 9·5 | 48 | +11 |
| | Southampton | 63 | 30 | 56·8 | 37·7 | 47·0 | + 4·1 | 53 | 12 | 0 | — | − 0·45 | 38·2 | +10·2 | 47 | +11 |
| | Hurst Castle | 58 | 35 | 54·0 | 40·1 | 46·8 | + 4·5 | 42 | 5 | 0 | — | − 0·40 | * | * | * | * |
| | Shaftesbury | 60 | 33 | 54·8 | 39·0 | 46·7 | + 6·0 | 46 | 8 | 0 | — | − 0·45 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 59 | 30 | 53·6 | 38·6 | 45·9 | + 4·7 | 42 | 10 | 4 | 0·11 | − 1·27 | * | * | * | * |
| | Glasgow | 58 | 32 | 51·3 | 39·3 | 45·1 | + 5·1 | 33 | 8 | 2 | 0·05 | − 0·47 | 23·4 | + 5·1 | 29 | + 6 |
| | Ardrossan | 54 | 36 | 50·0 | 41·4 | 45·6 | + 4·5 | 28 | 2 | 0 | — | − 0·50 | * | * | * | * |
| | Glenlee | 66 | 28 | 55·0 | 31·6 | 43·0 | + 3·2 | 51 | 29 | 2 | 0·07 | − 0·77 | * | * | * | * |
| | Douglas (Isle of Man) | 60 | 32 | 53·5 | 36·3 | 44·7 | + 3·3 | 43 | 16 | 1 | 0·03 | − 0·58 | 45·0 | +17·4 | 55 | +20 |
| 7. ENGLAND, N.W. | Stonyhurst | 60 | 33 | 53·1 | 37·4 | 45·0 | + 4·7 | 40 | 13 | 0 | — | − 0·76 | 35·7 | +13·4 | 44 | +16 |
| | Blackpool | 57 | 32 | 51·9 | 36·4 | 43·9 | + 3·0 | 37 | 16 | 0 | 0·01‡ | − 0·49 | 30·2 | + 8·4 | 37 | + 9 |
| | Manchester (Prestwich) | 61 | 31 | 55·1 | 36·8 | 45·7 | + 5·0 | 48 | 15 | 0 | — | − 0·51 | 24·4 | ? | 30 | ? |
| | Liverpool Obsy. (Bidston) | 56 | 37 | 52·1 | 40·3 | 46·0 | + 4·1 | 35 | 5 | 0 | — | − 0·38 | 31·7 | ? | 39 | ? |
| | Llandudno | 61 | 36 | 54·4 | 39·4 | 46·7 | + 3·8 | 44 | 7 | 0 | — | − 0·43 | 42·4 | +19·4 | 52 | +23 |
| | Holyhead | 56 | 40 | 51·6 | 43·3 | 47·3 | + 4·4 | 37 | 0 | 0 | — | — 0·50 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 67 | 27 | 60·6 | 34·0 | 46·9 | + 4·5 | 68 | 22 | 1 | 0·01 | − 0·78 | * | * | * | * |
| | Pembroke | 58 | 41 | 51·7 | 42·4 | 46·9 | + 3·9 | 34 | 0 | 1 | 0·03 | − 0·46 | 38·1 | + 8·8 | 46 | +10 |
| | Clifton | 61 | 34 | 56·2 | 38·9 | 47·3 | + 4·7 | 50 | 9 | 0 | — | − 0·50 | * | * | * | * |
| | Arlington (N. Devon) | ? 64 | 23 | 57·9 | 37·1 | 47·2 | + 6·5 | 57 | 14 | 1 | 0·02 | − 0·76 | * | * | * | * |
| | Cullompton | 63 | 29 | 57·1 | 35·4 | 45·9 | + 2·3 | 55 | 18 | 0 | — | − 0·55 | 34·4 | + 7·5 | 42 | + 8 |
| | Falmouth | 56 | 43 | 53·1 | 44·8 | 48·8 | + 4·7 | 48 | 0 | 0 | — | − 0·72 | 37·2 | + 7·3 | 45 | + 8 |
| | Plymouth | 60 | 37 | 55·5 | 41·6 | 48·3 | + 4·4 | 46 | 1 | 0 | — | − 0·56 | 48·2 | +19·3 | 59 | +23 |
| | Prawle Point | 56 | 33 | 53·3 | 41·4 | 47·2 | + 4·3 | 39 | 2 | 0 | — | − 0·42 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 60 | 39 | 51·3 | 43·9 | 47·5 | + 5·0 | 39 | 0 | 2 | 0·02 | ? | * | * | * | * |
| | Londonderry | 67 | 36 | 56·2 | 40 0 | 47.9 | + 5.4 | 50 | 6 | 0 | — | − 0·60 | * | * | * | * |
| | Edenfel (Omagh) | 64 | 32 | 54·9 | 37·3 | 45·9 | + 5·4 | 47 | 13 | 1 | 0·01 | − 0·55 | * | * | * | * |
| | Belmullet | 64 | 37 | 54·4 | 41·3 | 47·7 | + 3·9 | 43 | 2 | 4 | 0·09 | − 0·76 | * | * | * | * |
| | Markree Castle | 63 | 29 | 55·4 | 37·0 | 45·9 | + 4·1 | 48 | 14 | 1 | 0·01 | − 0·61 | 33·7 | +11·5 | 41 | +13 |
| | Armagh | 64 | 30 | 56·6 | 35·8 | 45·9 | + 4·8 | 53 | 17 | 0 | 0·01‡ | − 0·44 | 37·4 | +15·5 | 46 | +19 |
| | Donaghadee | 62 | 36 | 53 6 | 40·4 | 46·8 | + 4·5 | 40 | 4 | 0 | — | − 0·48 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 57 | 34 | 53·4 | 40·0 | 46·5 | + 3·1 | 40 | 6 | 1 | 0·01 | − 0·45 | 40·6 | +14·6 | 50 | +27 |
| | Parsonstown | 65 | 32 | 57·9 | 35·4 | 46·3 | + 4·2 | 58 | 18 | 1 | 0·04 | − 0·48 | 39·3 | +15·3 | 48 | +18 |
| | Kilkenny | 62 | 30 | 57·0 | 38·4 | 47·4 | + 4·2 | 53 | 10 | 0 | — | − 0·49 | * | * | * | * |
| | Roche's Point | 56 | 40 | 52·7 | 43·6 | 48·0 | + 3·6 | 42 | 0 | 0 | — | − 0·75 | * | * | * | * |
| | Valencia | 66 | 35 | 57·1 | 41·7 | 49·2 | + 3·5 | 52 | 1 | 2 | 0·07 | − 0·81 | 41·6 | +13·6 | 51 | +16 |
| | Killarney | 68 | 35 | 57·6 | 42·5 | 49·8 | + 5·2 | 55 | 0 | 0 | — | ? | * | * | * | * |
| | Foynes | 63 | 31 | 55·5 | 41·1 | 48·1 | + 4·3 | 46 | 3 | 1 | 0·04 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 56 | 44 | 53·9 | 45·9 | 49·8 | + 4·0 | 55 | 0 | 0 | — | − 0·52 | 37·4 | ? | 46 | ? |
| | Jersey | 61 | 40 | 55·4 | 42·6 | 48·8 | + 3·9 | 48 | 0 | 0 | — | − 0·51 | 46·0 | +12·6 | 56 | +14 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked 𝒮 with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

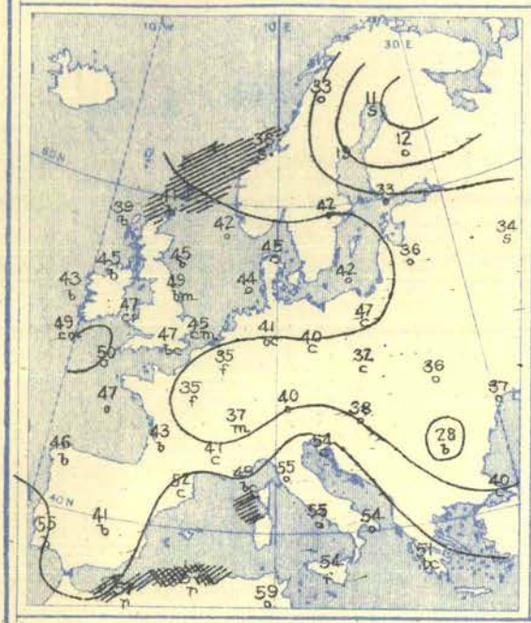
‡ Wet fog or dew.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 12th March.

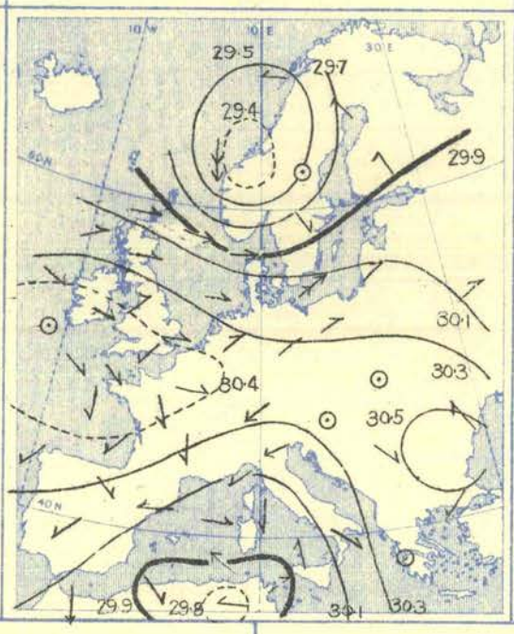
### Temperature and Weather.

8 a.m.

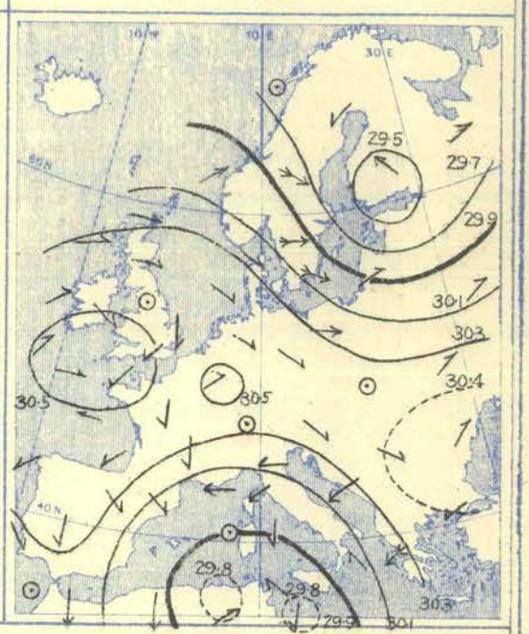


### Barometer and Wind.

8 a.m.




6 p.m.




*Weather* in morning (1) dull and gloomy, but fair, over the southern and western parts of our Islands, the north of France, and over Germany; foggy in many places; (2) unsettled over Scandinavia, with snow in places; (3) fair over the Mediterranean and southern Europe, rainy over Algeria. Rain falling heavily later at Algiers and Aumale, also in the extreme north of Europe.

*Temperature* in morning highest, 63° at Cagliari, and above 55° at many of the Mediterranean stations, 50° to 48° on our south-west coasts, 49° at Shields. Lowest, (1) 9° Fahr. at Uleaborg, 27° at Helsingfors; (2) 34° to 40° over the greater part of central Europe; (3) 40° at Parsonstown. Rising later to 54° at Aberdeen, 59° at York, 62° at Cambridge, and 66° at Nice, but only to 51° over Paris; to 68° at Lesina and Lisbon, and to 70° at Palermo.

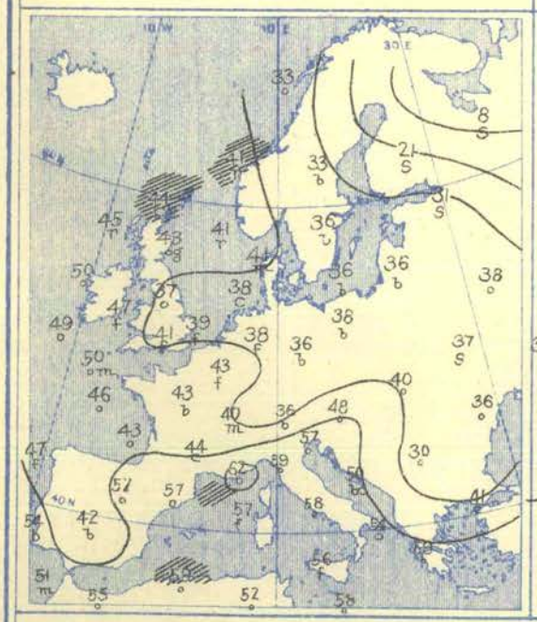
*Wind* was (1) cyclonic over northern Europe—Easterly at Bödo, Northerly to North-Westerly (a gale) in the west of Norway, South-Westerly at Wisby; (2) light and anticyclonic over Ireland, England, and France; North-Easterly over southern Europe; Northerly (strong) in Algeria. Backing to South-West in the north-west of Norway later, and in the west of Ireland, and veering to West and North-West (a gale) over Sweden.

*Barometer* highest, 30·4 ins. and more to 30·3 ins. in a compound anticyclone covering Ireland, England, the north of France, and Germany. Lowest, 29·4 ins. and less in a depression over Norway, and below 29·8 ins. in another over Tunis; gradients very slight over our southern and western districts. The anticyclone spreading eastwards later.

## Monday, 13th March.

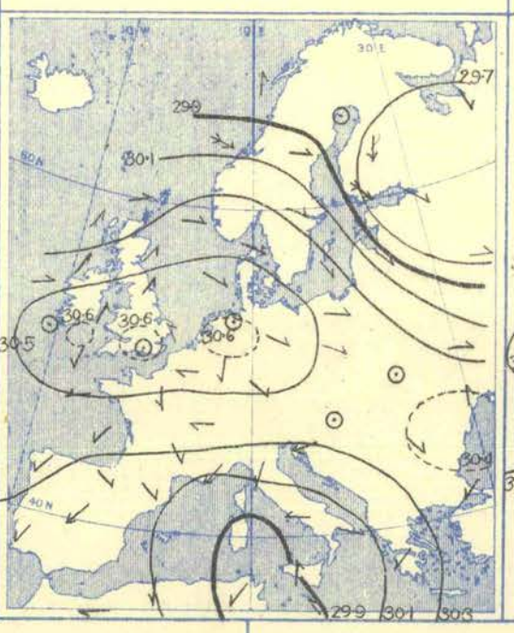
### Temperature and Weather.

8 a.m.

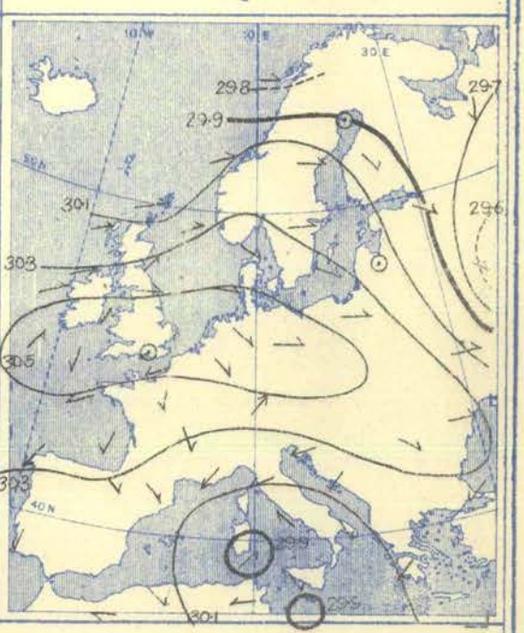


### Barometer and Wind.

8 a.m.




6 p.m.




*Weather* in morning fine over the whole of central Europe, England, and Ireland, but foggy in places; unsettled and rather showery in the north of our Islands and the west of Norway, rather disturbed over the Mediterranean, Italy, and the south of France. A little rain later in the most northern parts of Ireland and Scotland, and in Tunis; fog clearing temporarily in London.

*Temperature* changing fitfully—fallen fast over central England at first, rising fast later. Highest, 62° at Nice, 59° at Algiers, 58° at Malta; 50° on the coasts of Devon and Cornwall and at Belmullet, 49° in the south of Ireland, 45° at Stornoway, 41° in the west of Norway. Rising later to between 55 and 64° in many parts of Ireland, to 58° at Donaghadee; to 61 at Paris, 66° at Nice, and 68° at Lisbon, Marseilles, and Nice, 70° at Rome.

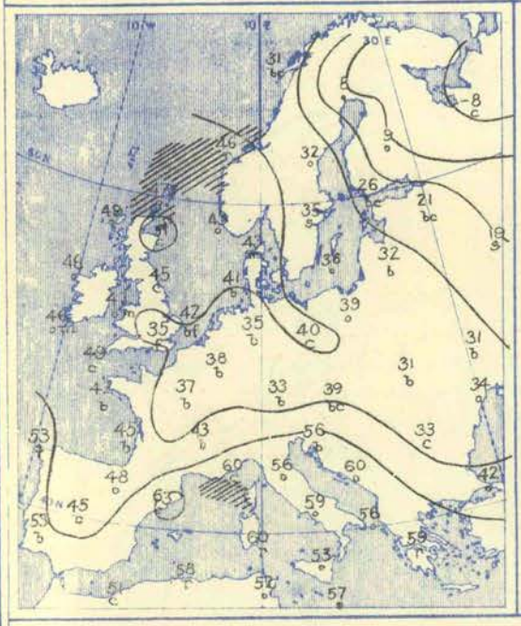
*Wind* (1) Westerly over the northern parts of our Islands, and North-Westerly (a gale) over the Gulf of Finland; (2) Easterly to North-Easterly over France, the north of Italy and Spain. Variable over Algeria. No decided change reported later.

*Barometer*, 30·6 ins. and more to 30·5 ins in an anticyclone covering the whole of Ireland, England, the north of France, and north Germany. Lowest, (1) 29·7 ins. and less in a depression over the north of Russia; 29·8 ins. and less off the west of Lapland; 29·9 ins. and less over Tunis and the western part of Sicily. A depression advancing eastwards over the north-west of Norway later

## Tuesday, 14th March.

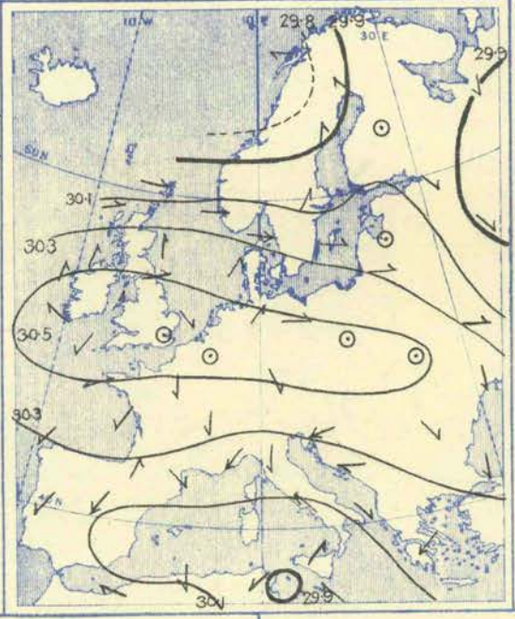
### Temperature and Weather.

8 a.m.

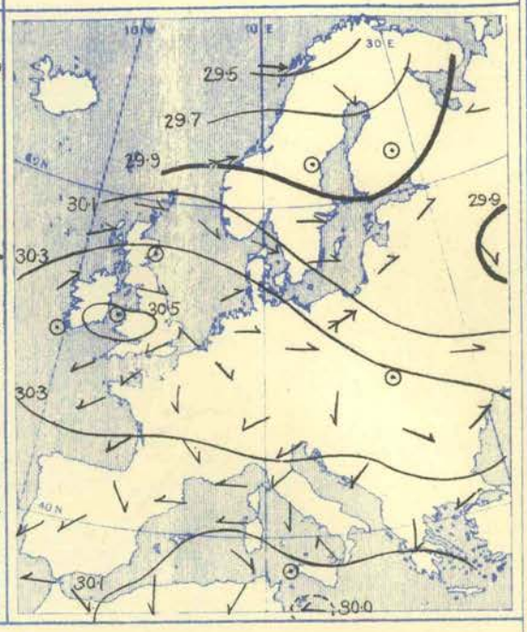


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over Germany, Holland, France, England, and Ireland, but foggy or hazy in many parts of Great Britain; rainy in the north-west of Norway. Some rain later in several parts of Finland, Scandinavia, and the north of Scotland; some at Algiers and Aumale; weather fine elsewhere, but very foggy in London till the evening.

*Temperature* changing fitfully. Morning readings highest, 63° at Barcelona, 60° at Nice and Cagliari, and above 55° at many of the Mediterranean stations; 50° to 51° in the east of Scotland; 49° at Scilly, 48° both at Valencia and at Christiansund. Lowest, −8° Fahr. at Archangel, +8° at Haparanda, 19° at Moscow; 33° to 37° in the south and west of Germany, and 37° to 39° at many of the French stations. Rising later to between 55° and 60° in various parts of our Islands, to 59° at Brussels, to 65° at Paris, 66° at Nice and Rome, 70° at Perpignan, and to 77° at Croisette. Following night cold again inland.

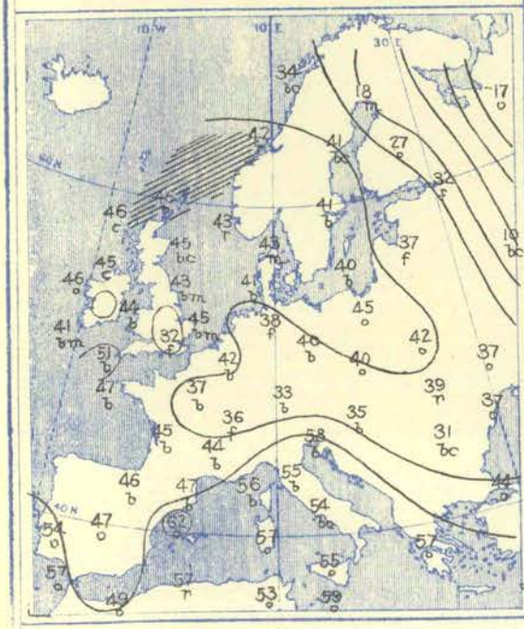
*Wind* Westerly (North-West to South-West) at the stations in the north of our Islands, and over northern Europe. A cyclonic circulation in the north-west of Norway; very light and variable over England as a whole, but North-Easterly in the Channel, and over France and southern Europe. No decided change over our Islands and the neighbourhood later.

*Barometer* highest, 30·5 ins. and more to 30·4 ins. in an anticyclonic band stretching from Ireland across England, the north of France, and Germany. Lowest, 29·8 ins. and less in a depression over the north-west of Norway; and below 30·0 ins. in another off the coast of Tunis. Rising at our northern stations and in Norway later, but falling in the Azores and on our west and south coasts.

## Wednesday, 15th March.

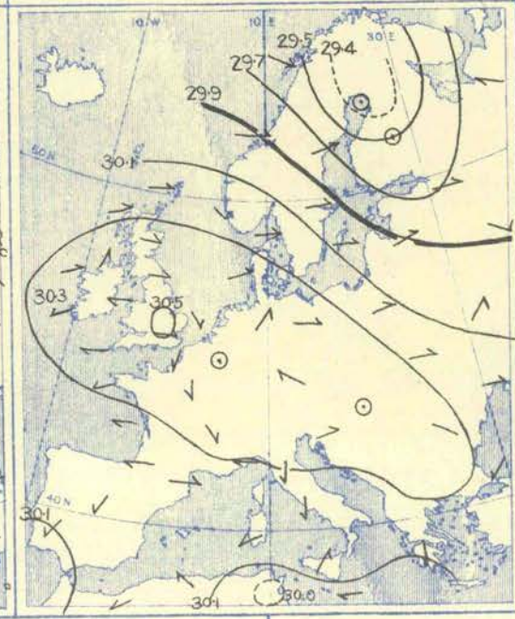
### Temperature and Weather.

8 a.m.

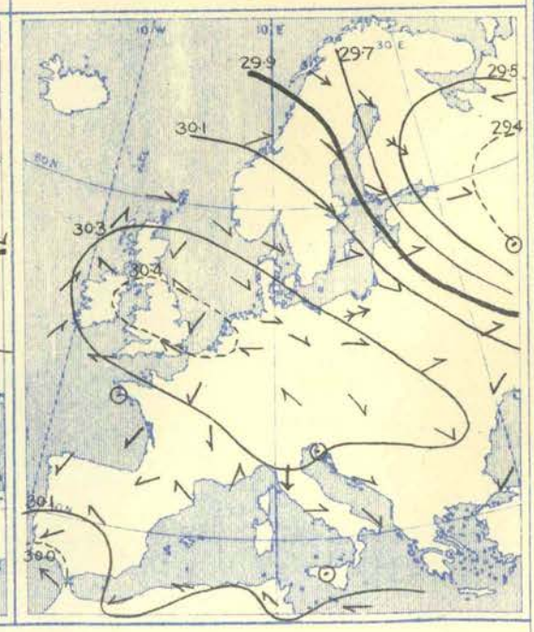


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine and quiet over the whole of the British Islands, the North Sea, France, and the greater part of Germany, with fog in several places, especially over England. Rather unsettled over northern Europe, with rain in the west of Norway, and fog at St. Petersburg. Nearly 0·6 ins. of rain at Christiansund later, and some at Bodö and Skudesnaes, and in Algeria; fog or haze continuing more or less in England.

*Temperature* in morning highest, 62° at Barcelona, and between 50° and 60° at most of the Mediterranean stations, 51° at Scilly, 49° at Wick, 47° at Leith, 42° at Christiansund. Lowest, (1) −17° Fahr. at Archangel, +10° at Moscow, 18° at Haparanda; (2) 32° at Prague, 33° at Munich, 37° at Paris; (3) 30° at Loughborough, 32° in London, 33° at Parsonstown. Rising rapidly later over the inland parts of western Europe, and many parts of the British Islands, and touching 59° at Wick, 60° at Loughborough, Cambridge, and in London, 65° at Valencia, 69° at Paris, 70° at Lorient, and 73° at Cape Béarn. Succeeding night cold inland.

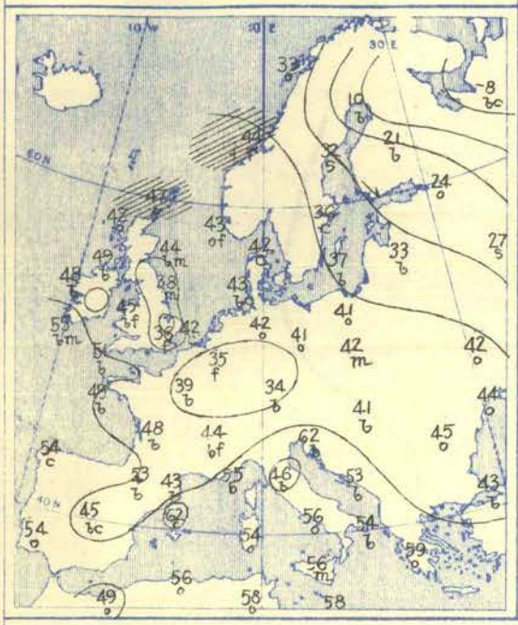
*Wind* light and anticyclonic over our Islands, South-Westerly at the northern stations, Easterly in the south. Light, Easterly, over France; strong, Westerly, over Scandinavia; and moderate over Germany. No important change reported later.

*Barometer* highest, 30·5 ins. to 30·3 ins. in an anticyclone covering the British Islands, France, and the west and south of Germany. Lowest, (1) 29·4 ins. and less over the eastern parts of Lapland; (2) below 30·1 ins. over the south-west of Spain and Portugal, and 29·6 ins. at Ponta Delgada (Azores); (3) 30·0 ins. and less over Tunis. Falling a little later on our west and south coasts; rising in Norway.

## Thursday, 16th March.

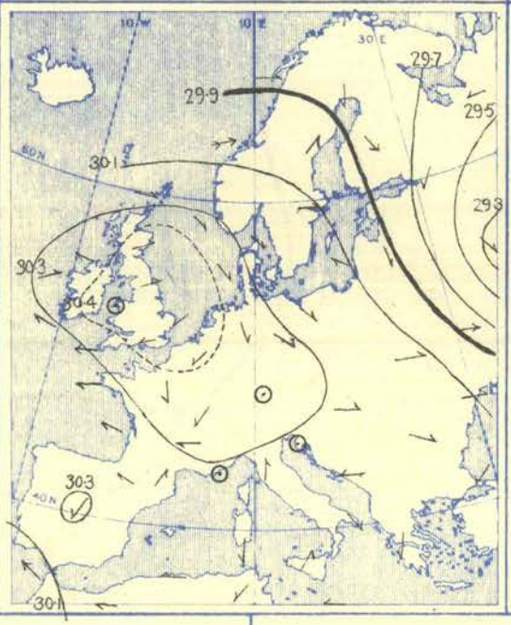
### Temperature and Weather.

8 a.m.

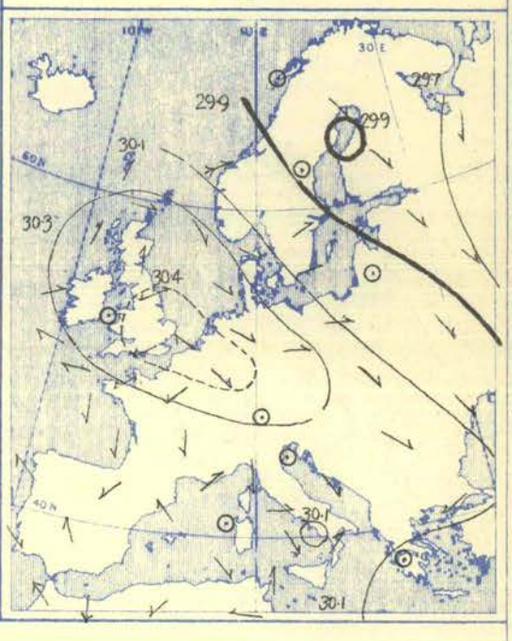


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* fair and quiet over the whole of the British Islands and their neighbourhood, but foggy or hazy in many parts of the United Kingdom; less settled over Russia and northern Europe, with rain at Christiansund, snow at Moscow. Rain later in considerable quantity at Bodö, Christiansund, and Hernösand, weather remaining dry in our Islands, but dull in the south-east.

*Temperature* in morning highest, 62° at Barcelona, 59° at Sanguinaire, 55° at Nice, 55° at Valencia (Ireland) also, 51° at Scilly, 49° at Malin Head, 47° at Sumburgh Head. Rising later to between 64° and 66° in the west of Ireland, to 73° at Brest, and to 70° at Nice, 75° at Clermont, 77° at Cape Bearn, but not exceeding 45° in London. Succeeding night cold over our Midland counties.

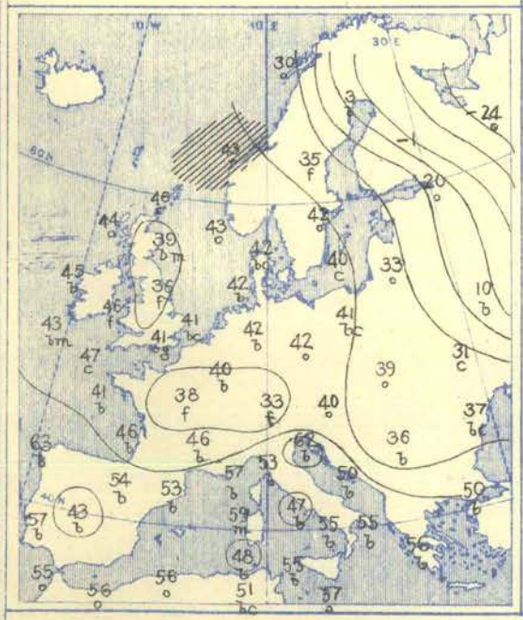
*Wind* Westerly (South-West to North-West), moderate to a gale over northern Europe; light Westerly in the north of Scotland; calm over England. Moderate, Easterly in the English Channel and over the Bay of Biscay; light and variable over the Mediterranean.

*Barometer* highest, 30·4 ins. and more to 30·3 ins. in a large anticyclone covering the whole of the British Islands, and the greater part of Central Europe. Lowest, (1) 29·3 ins. and less in a depression near Moscow; (2) below 30·1 ins. over the south of Spain, and below 29·7 ins. in the Azores. No important change reported later.

## Friday, 17th March.

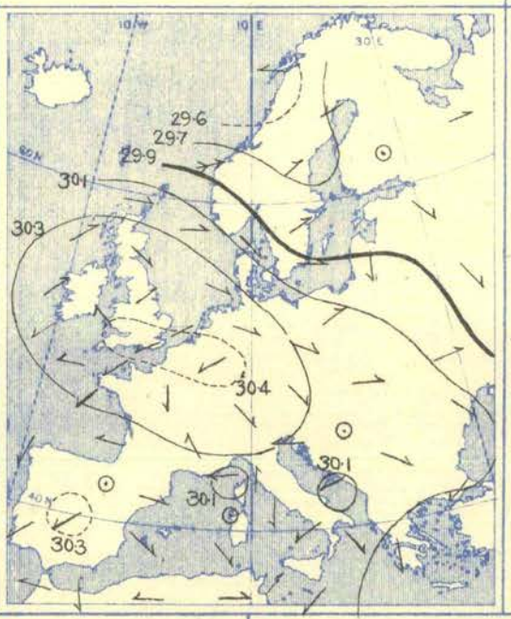
### Temperature and Weather.

8 a.m.

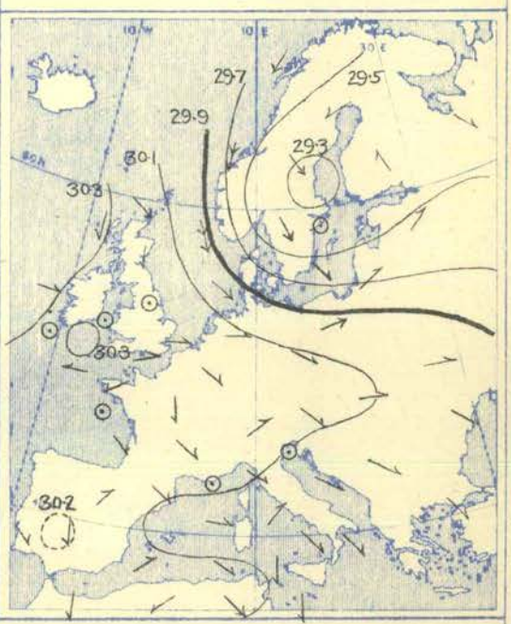


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning continuing fine over our Islands, France, and Central Europe, but cloud increasing over the south-east of England, and over Germany; fog in many places. Unsettled over the north-west of Norway, with rain at Christiansund. Some rain and slight snow later in different parts of Scandinavia, and some showers in north Germany, the north of our Islands, and at Pembroke.

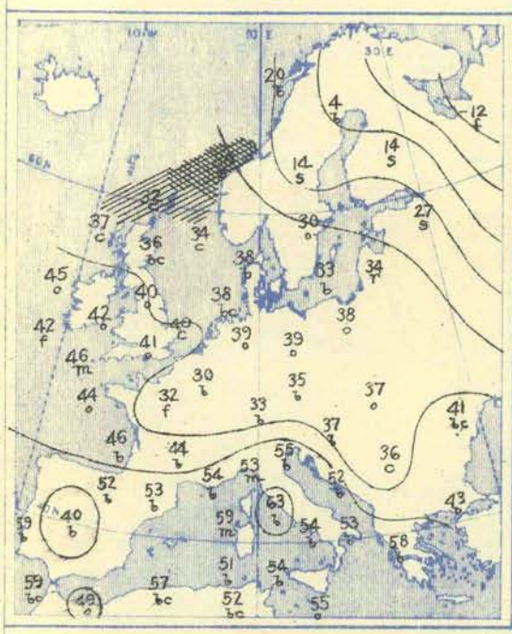
*Temperature* changing little and irregularly. Morning readings highest, 63° at Corunna, much above 50° at many of the Mediterranean stations; 47° at Scilly, 46° at Holyhead. Lowest, (1) −24° Fahr. at Archangel, −1° at Kuopio, +10° at Moscow, 28° at Kuopio, 41° at Breslau; (2) 33° at Munich, 38° at Nairn and the Helder; (3) 32° at Loughborough, 35° at Parsonstown. Rising later to 65° at Parsonstown, 62° in the north-east of Ireland and at Shields, 63° at Leith, 64° at Brest, 66° at Lyons, and 75° at Perpignan, and 77° at Cape Bearn.

*Wind* still light and anticyclonic over our Islands and France; North-Westerly to Westerly, moderate on the eastern side of the North Sea, but West-South-Westerly, a strong gale at Christiansund, and Easterly at Bodö. Increasing in force over Scandinavia later, and becoming North-Westerly to Northerly still later on our north and north-east coasts and freshening.

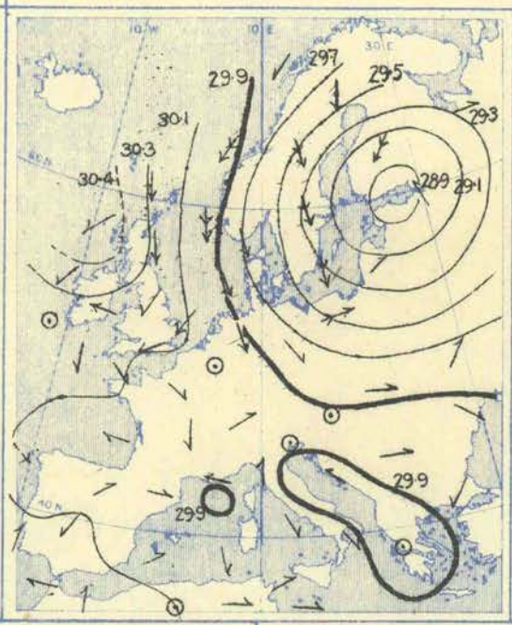
*Barometer* highest, 30·4 ins. and more to 30·3 ins. in a large, but imperfect anticyclone, covering the whole of our Islands and their neighbourhood. Lowest, 29·6 ins. and less in the north-west of Norway. Gradients rather steep in the latter region. Falling later, especially over Scandinavia; a depression arriving there and over Finland from the north-westward.

## Saturday, 18th March.

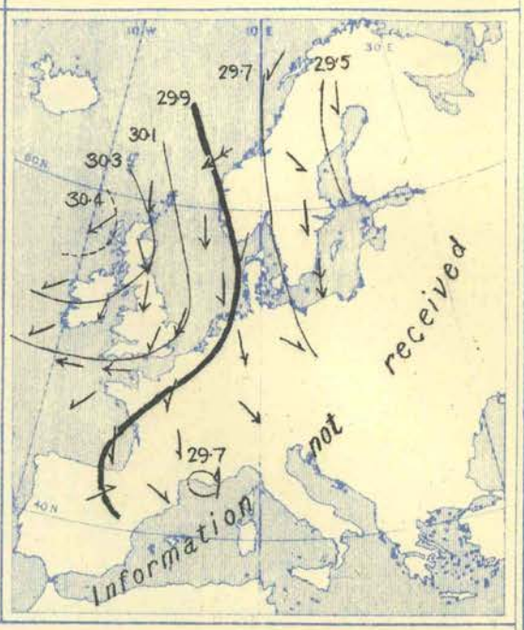
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.




### Barometer and Wind. 6 p.m.




*Weather* in morning cloudy over the greater part of our Islands; changeable, cloudy to clear over our Islands, and showery (sleet) in the north and north-east, unsettled and squalls over northern Europe, with cold showers in places; fine and quiet over the southern countries. Some showers of snow and "graupel" over the northern and eastern districts later, but remaining fair elsewhere.

*Temperature* giving way irregularly over the north-western countries generally. Morning readings highest, 63° at Rome, 57° at Algiers, 52° at La Calle and Biarritz, 46° at Scilly, 42° to 45° in the west of Ireland. Lowest, (1) −12° Fahr. at Archangel, +4° at Haparanda, 14° at Kuopio, 27° at Helsingfors, and 34° to 41° in the south of Russia; (2) 36° to 37° in the north-east of Scotland, 40° to 43° in the east and south of England; (3) 32° at Paris and Wiesbaden. Rising later to between 44° and 47° in the north-east and east of England, to 52° at Scilly and Jersey, to 59° at Brest, and 72° at Perpignan. Succeeding night cold.

*Wind* (1) Northerly, strong in Scotland, moderate to fresh on the east coasts of England, slight in the west and south; (2) Northerly to North-Westerly, fresh to a strong gale over Scandinavia; North-Easterly at Kuopio; but North-Westerly to Westerly over north Germany; (3) very light and variable over the southern parts of Europe.

*Barometer* highest, 30·45 ins. at Stornoway, and exceeding 30·1 ins. almost all over our Islands; 30·02 ins. at Biarritz. Lowest, 28·8 ins. and less in a deep depression over the Gulf of Finland; 29·95 ins. in the south of Russia. Rising later over Scandinavia and the east of England; falling over southern Europe.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟶⟶⟶ = a heavy gale ⟶⟶ = a gale; ⟶⟶ = a fresh to strong breeze; ⟶⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During the whole of this week quiet anticyclonic conditions have prevailed over our Islands. At first the central area of the system covered nearly the whole of Ireland, England, the Channel, the north of France, and north Germany, and in it barometric readings ranged from 30·6 ins. to 30·5 ins. Frost prevailed at night at the inland stations, but the daily maxima exceeded, considerably, 50° in this country, and touched 66° over the southern parts of France.

By the middle of the week the central area covered still more of our Islands, but there was no reading above 30·5 ins., and day temperatures of 60° or more occurred in several places, although the early mornings were still sharp and frosty. On Wednesday the maximum temperatures were as high as 70° at Brest, 65° in the west of Ireland, and 60° in London, but in the course of Thursday the sky remained overcast in the south-east of England, and in London the temperature did not rise above 45°.

At the close of the week the anticyclone had shifted to our extreme north-west coasts, a depression had advanced over the Baltic from the north-westward and northward, and with a fresh, squally breeze from the Northward, some cold showers were felt temporarily at our northern and eastern stations, and more abundantly at stations lying to the eastward of the North Sea.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 62.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 25·3 | ? | 31 | ? | WATERGATE (Emsworth) | 44·4 | ? | 54 | ? |
| STRATHPEFFER SPA | 36·4 | +12·2 | 45 | +13 | BRIGHTON | * 39·8 | +11·6 | 49 | +13 |
| EDINBURGH | 31·8 | +11·0 | 39 | +13 | BOGNOR | 43·3* | ? | 53* | ? |
| MORPETH | 49·9 | ? | 61 | ? | EASTBOURNE | 38·1 | + 9·1 | 46 | + 9 |
| NEWCASTLE-ON-TYNE | 35·3 | ? | 43 | ? | VENTNOR HOSPITAL | 40·8 | ? | 50 | ? |
| OSWALDKIRK (Yorkshire) | 53·6 | +29·1 | 65 | +34 | SOUTHPORT | 35·6 | ? | 43 | ? |
| HOLLESLEY BAY | 29·2 | ? | 36 | ? | COLWYN BAY | 44·7 | ? | 55 | ? |
| SHEFFIELD | 17·4 | ? | 21 | ? | ABERDOVEY | 44·4* | ? | 54* | ? |
| WORKSOP | 29·7 | + 7·5 | 36 | + 8 | TENBY | 33·6 | + 2·1 | 41 | + 2 |
| THURCASTON (Leicestershire) | 35·9 | +14·8 | 44 | +17 | NEWQUAY | 43·3 | +13·5 | 53 | +16 |
| PLUMSTEAD COMMON | 22·0 | ? | 27 | ? | TORQUAY | 43·0* | +14·0 | 52* | +15 |
| MARGATE | 31·6 | + 5·6 | 39 | + 7 | GUERNSEY | 48·2* | +15·4 | 59* | +18 |
| WESTBOURNE (Emsworth) | 45·7* | +15·5 | 56* | +18 | | | | | |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD, LITH., 63, CARTER LANE

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

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VOL. XVI. NO. 12.] *Third Series.* WEEK ENDING SATURDAY, MARCH 25TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 68.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 46 | 9 | 36·7 | 22·4 | 29·3 | 10 below | 0 | −10 | 89 | +55 | 99 | + 13 | 459 | − 15 |
| | 1. SCOTLAND, EAST | 48 | 3 | 37·1 | 23·4 | 30·1 | 10 below | 0 | −15 | 83 | +48 | 118 | + 3 | 503 | + 5 |
| | 2. ENGLAND, N.E. | 48 | 20 | 38·2 | 25·0 | 31·4 | 10 below | 0 | −17 | 74 | +44 | 190 | + 74 | 368 | − 66 |
| | 3. ENGLAND, EAST | 49 | 11 | 39·6 | 22·9 | 31·0 | 11 below | 0 | −21 | 77 | +45 | 228 | + 83 | 373 | −119 |
| | 4. MIDLAND COUNTIES | 50 | 16 | 40·2 | 22·8 | 31·2 | 11 below | 0 | −24 | 76 | +43 | 242 | + 87 | 416 | − 73 |
| | 5. ENGLAND SOUTH | 49 | 17 | 41·3 | 24·6 | 32·7 | 10 below | 0 | −23 | 65 | +39 | 280 | +107 | 266* | −127 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 48 | 13 | 41·2 | 25·5 | 33·2 | 8 below | 0 | −15 | 62 | *+35 | 152 | + 24 | 335 | − 21 |
| | 7. ENGLAND, N.W. | 49 | 20 | 40·7 | 27·8 | 34·1 | 9 below | 0 | −16 | 55 | +29 | 210 | + 87 | 280 | − 84 |
| | 8. ENGLAND, S.W. | 51 | 13 | 42·7 | 27·3 | 34·7 | 9 below | 2 | −20 | 50 | +29 | 292 | + 91 | 217 | − 80 |
| | 9. IRELAND, NORTH | 55 | 17 | 43·6 | 29·6 | 36·4 | 6 below | 4 | −16 | 43 | +20 | 199 | + 28 | 286 | − 23 |
| | 10. IRELAND, SOUTH | 56 | 19 | 45·7 | 29·1 | 37·2 | 7 below | 10 | −16 | 46 | +28 | 299 | + 47 | 221 | − 16 |
| | —CHANNEL ISLANDS | 52 | 29 | 45·4 | 34·0 | 39·5 | 7 below | 10 | −16 | 29 | +21 | 457 | +188 | 80 | − 52 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 68.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 4 | 6 | 3 less | 54 | − 7 | 11·4 | − 1·7 | 31 | + 8 | 37 | +10 | 190 | + 44 | 25 | + 6 |
| | 1. SCOTLAND, EAST | 4 | 7 | 3 more | 47 | + 1 | 7·2 | + 0·2 | 36 | +11 | 42 | +10 | 224 | + 42 | 30 | + 6 |
| | 2. ENGLAND, N.E. | 6 | 10 | 6 more | 44 | 0 | 4·8 | − 0·3 | 33 | + 7 | 39 | + 8 | 227* | + 49 | 29 | + 6 |
| | 3. ENGLAND, EAST | 5 | 6 | 3 more | 42 | − 2 | 4·3 | − 0·6 | 38 | +10 | 46 | +11 | 335 | +117 | 41 | +15 |
| | 4. MIDLAND COUNTIES | 3 | 4 | 1 less | 40 | − 1 | 6·8 | + 1·0 | 42 | +17 | 49 | +19 | 269 | + 94 | 36 | +12 |
| | 5. ENGLAND, SOUTH | 2 | 3 | 2 less | 35 | − 6 | 5·9 | − 0·4 | 43 | +12 | 50 | +13 | 326 | +111 | 40 | +14 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 3 | 8 | 0 (average) | 51 | 0 | 11·2 | − 1·4 | 47 | +21 | 55 | +24 | 206 | + 35 | 27 | + 5 |
| | 7. ENGLAND, N.W. | 4 | 8 | 2 more | 46 | 0 | 8·3 | + 1·1 | 49 | +27 | 57 | +31 | 260 | + 78 | 33 | +10 |
| | 8. ENGLAND, S.W. | 4 | 6 | 0 (average) | 44 | − 2 | 12·1 | + 2·9 | 47 | +15 | 55 | +16 | 300 | + 69 | 37 | + 8 |
| | 9. IRELAND, NORTH | 6 | 8 | 2 more | 57 | + 4 | 8·0 | − 0·5 | 45 | +24 | 53 | +25 | 250 | + 72 | 32 | + 9 |
| | 10. IRELAND, SOUTH | 3 | 6 | 0 (average) | 47 | − 1 | 11·6 | + 2·1 | 43 | +14 | 51 | +16 | 268 | + 53 | 34 | + 7 |
| | — CHANNEL ISLANDS | 5 | 1 | 4 less | 44 | − 8 | 8·0 | + 0·1 | 47 | +10 | 55 | +11 | 323 | + 77 | 41 | + 9 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was very inclement and unusually cold for the time of year. Snow was of frequent occurrence in almost all parts of the kingdom, especially over the eastern parts of Great Britain, where the fall was heavy. By the end of the week, however, the weather had become less cold, and rain was falling over all the more southern districts.

*Temperature* was much below the mean, the deficit ranging from 6° in Ireland N., and 7° in Ireland S., and the Channel Islands to 10° or 11° in the "wheat producing" districts. The highest of the maxima were recorded on the 25th, and ranged from 56° in Ireland S., to 46° in Scotland N. Taking the week as a whole the daily maxima over all the northern and eastern parts of Great Britain were considerably below 40°. The absolute minima were extremely low, and were registered about the middle of the week. In Scotland E. (at Braemar) the sheltered thermometer fell to 3°, in Scotland N. to 9°, and in England E. to 11°. Elsewhere the minima varied from 13° in Scotland W. and England S.W. to 20° in England N.E. and N.W., and to 29° in the Channel Islands. Temperature during this week was much lower than any experienced during the past winter.

*Rainfall* exceeded the mean in Scotland E., England N.E., England N.W., and Ireland N., but was less than the normal in Scotland N., the Midland Counties, England S. and the Channel Islands, and just equal to it elsewhere. In England N.E. the fall was more than twice as much as the mean.

*Bright Sunshine* was again in excess of the mean; the percentage of the possible duration ranging from 57 in England N.W., and 55 in Scotland W., England S.W., and the Channel Islands, to 37 in Scotland N.

*Barometer and Wind.*—During nearly the whole of this week pressure was highest to the westward and lowest to the eastward of our Islands, and secondary disturbances passed southwards over the North Sea and our eastern coasts. None of these systems, however, were of any great depth, and the North-Westerly to North-Easterly wind which prevailed was generally moderate in force, only occasionally increasing to a fresh or strong breeze. By the end of the week the barometer had fallen decidedly in the west, and a depression was spreading over the Kingdom from the Atlantic, with increasing Southerly and South-Westerly winds in the south and South-Easterly breezes in the north.

227 | 90 Wy. & S., Ltd.
613 | 70 3 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

NOTE.—The Weekly Weather Report for next week will be issued on Friday instead of on Thursday.

# II.—DATA from which the SUMMARY on page 67 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 41 | 20 | 33·1 | 22·7 | 27·8 | −11·0 | 0 | 99 | 6 | 0·64 | + 0·06 | * | * | * | * |
| | Stornoway | 40 | 22 | 37·6 | 25·0 | 31·1 | − 8·8 | 0 | 76 | 6 | 1·31 | + 0·51 | 42·7 | +18·7 | 50 | +21 |
| | Wick | 40 | 19 | 37·0 | 24·4 | 30·5 | − 9·4 | 0 | 81 | 6 | 0·75 | + 0·33 | * | * | * | * |
| | Lairg Ⓢ | 46 | 9 | 38·8 | 15·3 | 26·7 | −12·0 | 0 | 107 | 4 | 0·57 | − 0·11 | * | * | * | * |
| | Glencarron Ⓢ | 38 | 17 | 34·5 | 21·2 | 27·7 | −11·1 | 0 | 100 | 4 | 0·34 | − 1·06 | * | * | * | * |
| | Fort Augustus Ⓢ | 43 | 17 | 37·8 | 22·7 | 30·0 | − 9·8 | 0 | 84 | 2 | 0·12 | − 0·48 | 23·1 | + 5·1 | 27 | + 6 |
| | Fort William Ⓢ | 40 | 20 | 38·3 | 25·2 | 31·6 | − 9·2 | 0 | 73 | 2 | 0·18 | − 0·97 | 34·6 | +12·2 | 41 | +14 |
| 1. SCOTLAND E. | Nairn | 42 | 18 | 36·6 | 24·3 | 30·3 | − 9·9 | 0 | 82 | 6 | 0·39 | − 0·03 | * | * | * | * |
| | Aberdeen | 41 | 18 | 35·0 | 23·3 | 29·0 | −11·7 | 0 | 91 | 6 | 1·22 | + 0·72 | 36·5 | + 8·3 | 43 | + 9 |
| | Braemar Ⓢ | 37 | 3 | 32·5 | 17·5 | 24·8 | −12·4 | 0 | 120 | 7 | 0·67 | + 0·17 | 34·8† | + 8·1† | 41† | + 9† |
| | Ochtertyre Ⓢ | 48 | 19 | 41·1 | 25·3 | 33·0 | − 7·4 | 0 | 63 | 2 | 0·71 | + 0·07 | * | * | * | * |
| | Leith | 45 | 24 | 41·3 | 26·6 | 33·7 | − 7·9 | 0 | 58 | 2 | 0·55 | + 0·20 | * | * | * | * |
| | Marchmont Ⓢ | 41 | 19 | 36·3 | 23·4 | 29·7 | − 9·9 | 0 | 86 | 7 | 0·92 | + 0·34 | 39·3 | +15·3 | 46 | +17 |
| 2. ENGLAND, N.E. | Alnwick Castle | ? 44 | 21 | ? 37·9 | 25·5 | ? 31·5 | ?− 8·6 | 0 | ? 74 | 7 | 2·46 | + 1·91 | * | * | * | * |
| | Durham | 42 | 20 | 37·0 | 24·9 | 30·8 | −10·1 | 0 | 78 | 6 | 0·58 | + 0·08 | 29·7 | + 3·4 | 35 | + 2 |
| | Shields | 41 | 20 | 36·4 | 23·4 | 29·7 | −11·4 | 0 | 86 | 7 | 1·01 | + 0·59 | * | * | * | * |
| | Scarborough Ⓜ | 45 | 20 | 41·9 | 24·7 | 33·1 | − 8·7 | 0 | 62 | 5 | 1·20 | + 0·76 | 37·0 | ? | 44 | ? |
| | York | 48 | 21 | 39·7 | 23·9 | 31·6 | −10·2 | 0 | 73 | 7 | 0·26 | − 0·15 | ?39·1 | ? +14·1 | ? 46 | ? +16 |
| | Spurn Head | 44 | 25 | 36·3 | 27·6 | 31·8 | − 9·4 | 0 | 71 | 6 | 0·40 | + 0·09 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 46 | 19 | 39·7 | 24·4 | 31·8 | −10·7 | 0 | 71 | 6 | 0·64 | + 0·26 | 39·2 | +12·8 | 46 | +14 |
| | Yarmouth | 46 | 21 | 37·4 | 25·6 | 31·3 | − 9·6 | 0 | 75 | 7 | 1·01 | + 0·57 | * | * | * | * |
| | Geldeston | 43 | 11 | 39·9 | 21·0 | 30·2 | −12·0 | 0 | 83 | 6 | 0·95 | + 0·57 | 35·5 | + 5·6 | 42 | + 6 |
| | Cambridge | 49 | 16 | 41·4 | 21·4 | 31·1 | −11·3 | 0 | 76 | 3 | 0·53 | + 0·21 | 38·6 | + 9·6 | 45 | +10 |
| | Felixstowe | ? | 20 | ? | 23·0 | ? | ? | ? | ? | 4 | 0·45 | ? | 38·3 | ? | 45 | ? |
| | Rothamsted | 48 | 17 | 39·8 | 21·9 | 30·6 | −11·0 | 0 | 80 | 2 | 0·23 | − 0·19 | 38·2 | +10·2 | 45 | +11 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 50 | 20 | 40·3 | 23·7 | 31·8 | −10·1 | 0 | 71 | 3 | 0·21 | − 0·20 | * | * | * | * |
| | Loughborough | 48 | 18 | 40·9 | 21·7 | 31·0 | −11·5 | 0 | 77 | 6 | 0·38 | − 0·02 | * | * | * | * |
| | Stamford (Duddington) | 48 | 19 | 40·4 | 22·7 | 31·3 | −10·9 | 0 | 75 | 3 | 0·23 | − 0·15 | * | * | * | * |
| | Cheadle Ⓜ | 41 | 21 | 38·5 | 22·7 | 30·4 | −10·4 | 0 | 81 | 4 | 0·64 | + 0·11 | * | * | * | * |
| | Shirley (near Solihull) | 47 | 20 | 38·5 | 23·1 | 30·6 | −10·2 | 0 | 80 | 2 | 0·43 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 46 | 16 | 39·9 | 22·4 | 30·9 | −10·4 | 0 | 78 | 4 | 0·83 | + 0·38 | 44·2 | +17·4 | 52 | +20 |
| | Hereford Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 50 | 18 | 41·4 | 22·0 | 31·4 | −10·0 | 0 | 74 | 3 | 0·11 | − 0·38 | 51·8 | +24·8 | 61 | +28 |
| | Oxford | 48 | 21 | 41·6 | 24·0 | 32·5 | −10·2 | 0 | 67 | 2 | 0·07 | − 0·32 | 40·8 | +13·6 | 48 | +15 |
| 5. ENGLAND, S. | London | 49 | 22 | 41·6 | 25·7 | 33·4 | −10·0 | 0 | 60 | 2 | 0·23 | − 0·13 | 28·4† | + 8·0† | 33† | + 8† |
| | Cranley Ⓜ | 43 | 17 | 40·3 | 21·6 | 30·7 | −12·5 | 0 | 79 | 1 | 0·03 | ? | * | * | * | * |
| | Dungeness | 46 | 17 | 41·0 | 22·7 | 31·6 | −10·9 | 0 | 73 | 2 | 0·28 | − 0·20 | * | * | * | * |
| | Hastings (St. Leonards) | 46 | 20 | 40·2 | 25·3 | 32·5 | −10·4 | 0 | 67 | 3 | 0·54 | + 0·04 | 51·0 | +18·2 | 60 | +21 |
| | Southampton | 48 | 23 | 42·9 | 25·2 | 33·8 | −10·1 | 3 | 58 | 3 | 0·37 | − 0·11 | 46·2 | +15·4 | 54 | +17 |
| | Hurst Castle | 48 | 24 | 43·4 | 26·1 | 34·5 | − 8·7 | 4 | 55 | 3 | 0·20 | − 0·26 | * | * | * | * |
| | Shaftesbury Ⓜ | 46 | 22 | 39·6 | 25·8 | 32·5 | − 9·3 | 0 | 67 | 2 | 0·32 | − 0·13 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 43 | 20 | 40·5 | 25·6 | 32·8 | − 9·2 | 0 | 64 | 5 | 0·40 | − 0·95 | * | * | * | * |
| | Glasgow | 42 | 24 | 38·4 | 27·5 | 32·8 | − 8·0 | 0 | 64 | 2 | 0·86 | + 0·30 | 39·8 | +19·3 | 47 | +23 |
| | Ardrossan | 44 | 24 | 42·3 | 27·7 | 34·8 | − 7·1 | 1 | 49 | 2 | 0·63 | + 0·05 | * | * | * | * |
| | Glenlee Ⓢ | 45 | 13 | 41·8 | 20·0 | 30·6 | − 9·9 | 0 | 73 | 2 | 1·17 | + 0·29 | * | * | * | * |
| | Douglas (Isle of Man) | 48 | 22 | 43·1 | 26·9 | 34·8 | − 7·2 | 3 | 52 | 3 | 1·04 | + 0·36 | 53·2 | +22·6 | 63 | +26 |
| 7. ENGLAND, N.W. | Stonyhurst | 42 | 20 | 38·5 | 24·8 | 31·5 | −10·1 | 0 | 74 | 4 | 1·54 | + 0·79 | 51·9 | +27·4 | 61 | +32 |
| | Blackpool Ⓜ | 47 | 20 | 42·4 | 26·1 | 34·0 | − 7·9 | 1 | 54 | 4 | 0·98 | + 0·44 | 52·1 | +28·6 | 61 | +33 |
| | Manchester (Prestwich) | 43 | 20 | 39·0 | 24·2 | 31·4 | −10·5 | 0 | 74 | 4 | 0·67 | + 0·12 | 37·7 | ? | 44 | ? |
| | Liverpool Obsy. (Bidston) | 48 | 27 | 40·4 | 29·1 | 34·6 | − 8·1 | 0 | 52 | 4 | 0·31 | − 0·11 | 45·4 | ? | 53 | ? |
| | Llandudno Ⓜ | 49 | 26 | 43·2 | 30·9 | 36·9 | − 7·0 | 3 | 39 | 3 | 0·58 | + 0·09 | 50·1 | +25·9 | 59 | +30 |
| | Holyhead | 48 | 30 | 40·9 | 31·6 | 36·1 | − 7·6 | 0 | 41 | 2 | 0·61 | + 0·11 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 48 | 13 | 43·4 | 20·1 | 31·4 | −11·8 | 4 | 75 | 4 | 1·00 | + 0·22 | * | * | * | * |
| | Pembroke | 48 | 30 | 41·1 | 31·7 | 36·3 | − 7·6 | 0 | 40 | 6 | 0·96 | + 0·44 | 44·2 | +12·3 | 52 | +14 |
| | Clifton | 48 | 25 | 42·3 | 27·4 | 34·6 | − 8·7 | 1 | 50 | 1 | 0·60 | + 0·08 | * | * | * | * |
| | Arlington (N. Devon) | 47 | 23 | 41·0 | 27·3 | 34·0 | − 6·9 | 0 | 56 | 4 | 0·71 | − 0·07 | * | * | * | * |
| | Cullompton Ⓜ | 51 | 15 | 44·1 | 23·1 | 33·3 | −11·2 | 6 | 66 | 3 | 0·23 | − 0·25 | 43·2 | +13·7 | 51 | +16 |
| | Falmouth | 46 | 28 | 42·2 | 31·1 | 36·5 | − 8·3 | 1 | 37 | 6 | 0·82 | + 0·16 | 48·0 | +15·5 | 56 | +17 |
| | Plymouth | 45 | 20 | 41·8 | 28·0 | 34·7 | −10·1 | 0 | 51 | 4 | 0·32 | − 0·26 | 46·2 | +14·4 | 54 | +16 |
| | Prawle Point | 48 | 25 | 45·3 | 29·3 | 37·1 | − 6·7 | 9 | 45 | 2 | 0·18 | − 0·26 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 49 | 28 | 40·6 | 32·4 | 36·4 | − 6·5 | 0 | 39 | 7 | 0·54 | ? | * | * | * | * |
| | Londonderry | 52 | 28 | 46·0 | 30·6 | 38·1 | − 5·1 | 11 | 41 | 7 | 0·98 | + 0·31 | * | * | * | * |
| | Edenfel (Omagh) | 51 | 22 | 42·6 | 26·7 | 34·4 | − 6·7 | 2 | 52 | 4 | 0·85 | + 0·25 | * | * | * | * |
| | Belmullet | 52 | 27 | 44·4 | 31·9 | 38·0 | − 6·3 | 7 | 36 | 7 | 1·55 | + 0·71 | * | * | * | * |
| | Markree Castle | 55 | 17 | 44·4 | 26·1 | 35·0 | − 7·8 | 7 | 56 | 7 | 0·50 | − 0·11 | 44·4 | +20·3 | 52 | +23 |
| | Armagh | 52 | 21 | 44·5 | 26·5 | 35·2 | − 6·7 | 7 | 54 | 5 | 0·72 | + 0·28 | 45·4 | +21·6 | 53 | +25 |
| | Donaghadee | 48 | 31 | 42·7 | 32·9 | 37·7 | − 5·6 | 2 | 32 | 2 | 0·54 | + 0·04 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 54 | 27 | 44·3 | 30·5 | 37·2 | − 7·1 | 6 | 40 | 3 | 0·31 | − 0·16 | 45·8 | +16·8 | 54 | +19 |
| | Parsonstown | 55 | 19 | 44·9 | 24·1 | 34·2 | − 8·7 | 8 | 63 | 2 | 0·25 | − 0·29 | 34·0 | + 7·8 | 40 | + 8 |
| | Kilkenny | 54 | 20 | 44·4 | 26·7 | 35·3 | − 8·6 | 7 | 53 | 2 | 0·21 | − 0·29 | * | * | * | * |
| | Roche's Point | 51 | 28 | 46·1 | 32·7 | 39·2 | − 6·0 | 11 | 34 | 2 | 0·65 | − 0·08 | * | * | * | * |
| | Valencia | 54 | 26 | 46·7 | 31·3 | 38·8 | − 7·7 | 13 | 39 | 5 | 0·94 | + 0·13 | 50·0 | +19·0 | 59 | +22 |
| | Killarney | 55 | 20 | 45·8 | 26·5 | 35·9 | − 9·0 | 11 | 55 | 3 | 1·67 | ? | * | * | * | * |
| | Foynes | 56 | 23 | 47·7 | 32·2 | 39·7 | − 3·9 | 16 | 37 | 2 | 0·20 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 52 | 31 | 46·4 | 35·0 | 40·5 | − 5·9 | 12 | 26 | 4 | 0·12 | − 0·40 | 48·7 | ? | 57 | ? |
| | Jersey | 49 | 29 | 44·4 | 33·0 | 38·5 | − 7·2 | 7 | 32 | 5 | 0·16 | − 0·40 | 47·3 | +10·5 | 56 | +12 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

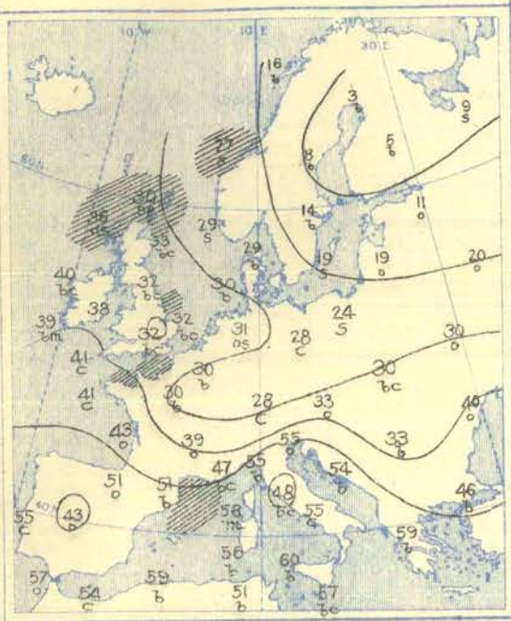
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

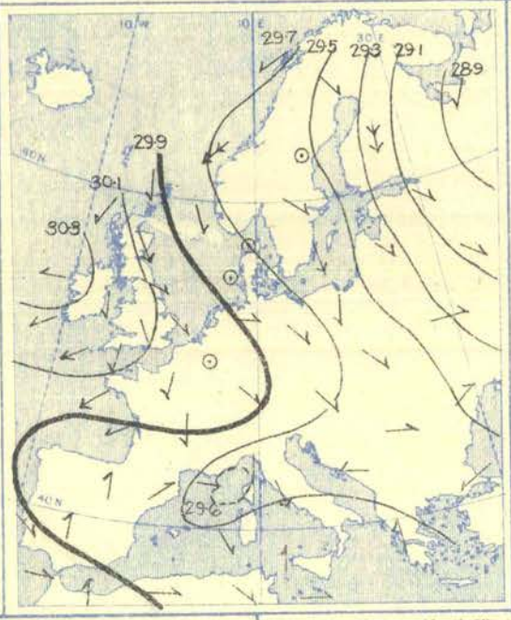
Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 19th March.

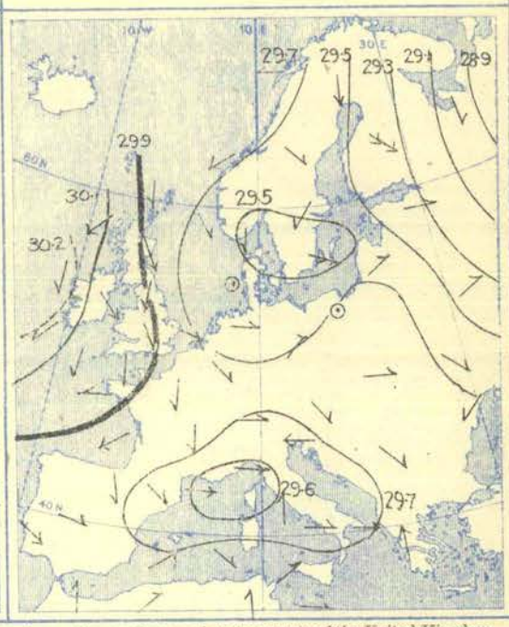
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the greater part of our Islands, but snow falling in the north of Scotland and also in the west of Norway. Fine over Finland and the north of Scandinavia and also over Austria, Italy, Greece, and the extreme south of France; cloudy in most other parts of the Continent, with snow at several of the German stations, as well as at Wisby and Archangel. Snow showers falling later in all the more northern and eastern parts of the United Kingdom, and also over Germany and the Netherlands.

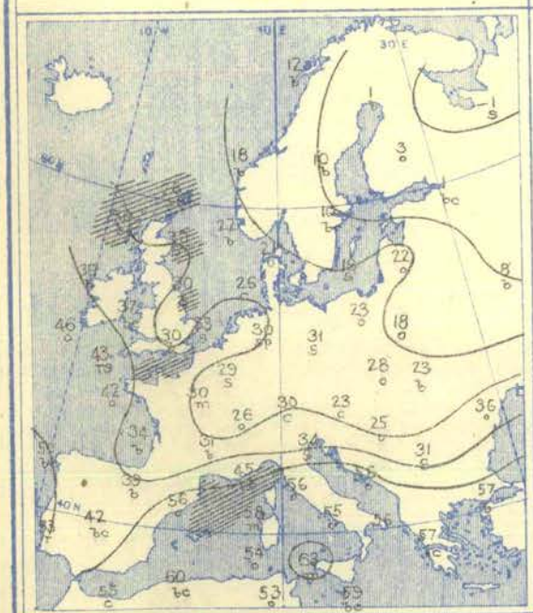
*Temperature* fallen generally. Morning readings highest, 69° at Palermo, 59° at Patras and Algiers, and 58° at Sanguinaire; above 50° in most parts of southern Europe. Lowest, 3° at Ulearborg, 4° at Haparanda, and 5° at Kuopio; considerably below the freezing point over northern Europe generally and slightly below it over the central countries, as well as in many parts of Great Britain and central Ireland. Daily maxima below 40° at most of our own northern and eastern stations, and below 45° on all but our south-west coasts. Exceeding 60° over southern Europe as a whole, and reaching 73° at Palermo. Very sharp frost occurring over Great Britain at night.

*Wind* Northerly or North-Westerly over the northern and eastern parts of the United Kingdom and the whole of northern and central Europe; light or moderate in force generally, but strong in the north-east of Scotland, and blowing a gale at Christiansund and Kuopio. Light to fresh from the Eastward or North-Eastward over the south-west of our Islands and the greater part of France. Westerly or South-Westerly over the Spanish Peninsula and the extreme south of France; variable in Italy; Southerly or South-Westerly in the south of Russia. No important change occurring during day.

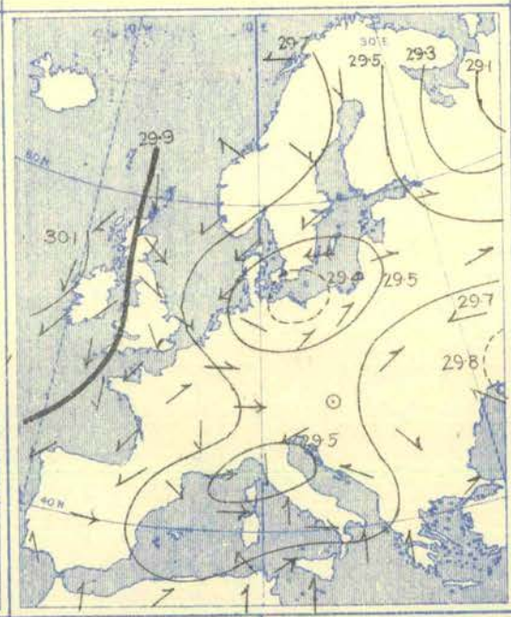
*Barometer* highest, 30·5 ins. and upwards in an anticyclone spreading from the Atlantic over the western and central parts of Ireland. Lowest, 28·9 ins. and less in a large depression over northern Russia; 29·6 ins. and less in two other disturbances—one lying over the Gulf of Genoa and the other over the northern part of the Adriatic. Russian depression subsequently moving eastwards, but well-marked secondary system forming over the south of Sweden.

## Monday, 20th March.

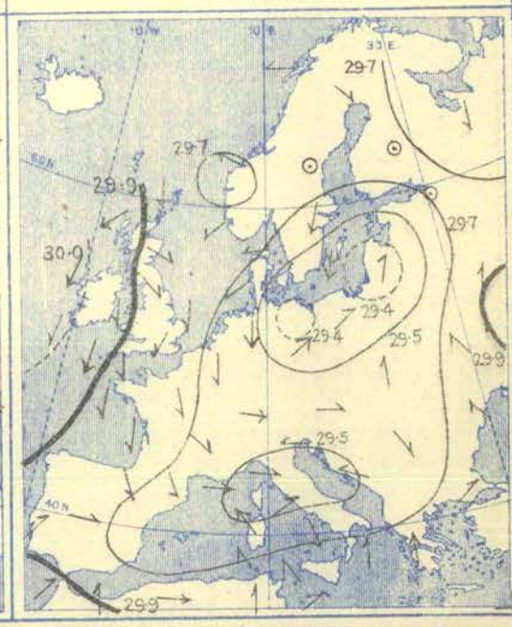
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning very changeable in our Islands, with snow showers in many places. Fine in France and Spain, as well as over the greater part of Scandinavia and northern Russia, but snow falling at Wisby and Archangel; dull in most other parts of the Continent, with rain at Lisbon, and snow over north Germany, as well as at Brussels and Hermanstadt. Snow falling later in most parts of western, northern and central Europe,—rather heavily in places. Rain reported over the southern parts of Italy and the Spanish Peninsula.

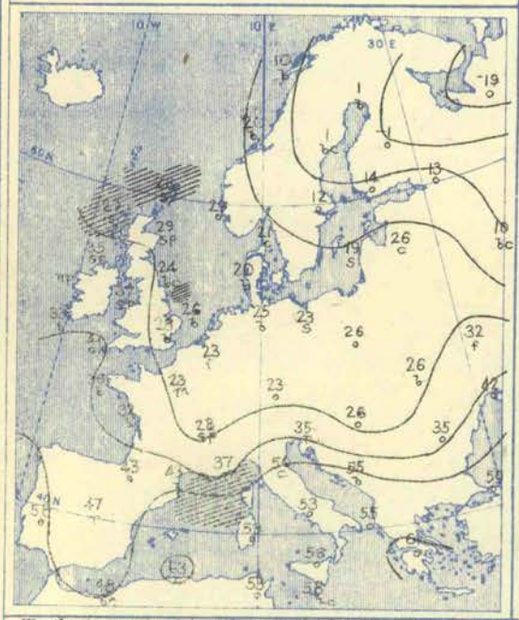
*Temperature* fallen in most places. Morning readings highest, 63° at Palermo, 60° at Algiers, and 59° at Palermo; above 55° at many of the Mediterranean and Adriatic stations. Lowest, −2° Fahr. at Helsingfors, −1° at Archangel, and +1° at Uleaborg and St. Petersburg; considerably below the freezing point in most parts of Russia and Scandinavia, and a few degrees below it in many parts of Great Britain. Daily maxima below 35° at several of our own northern and eastern stations, and below 45° on all but our south-west coasts. Thermometer exceeding 60° over southern Europe, and reaching 77° at Palermo. Hard frost occurring over central England at night.

*Wind* Northerly (North-Westerly to North-Easterly) in our Islands and France, and strong in force on our north-east coasts. Light from the Northward or North-Westward over northern Russia; strong from the North-Eastward in Denmark and the south of Scandinavia, with a gale at Wisby; Westerly or South-Westerly in Germany, Southerly or South-Westerly over the greater part of Italy, but Easterly over the northern parts of the Adriatic. No important change occurring later, but wind moderating on our north-east coasts.

*Barometer* highest, 30·1 ins. and upwards in an anticyclone lying off the west of Ireland. Lowest, 29·2 ins. and less in a depression over northern Russia; 29·4 ins. and less in another disturbance lying over north Germany and the southern parts of the Baltic; 29·5 ins. and less in a third lying over northern Italy and the Gulf of Genoa. Russian depression subsequently moving away to the eastward; Baltic disturbance becoming more complex; shallow secondary system appearing over the west of Norway in evening.

## Tuesday, 21st March.

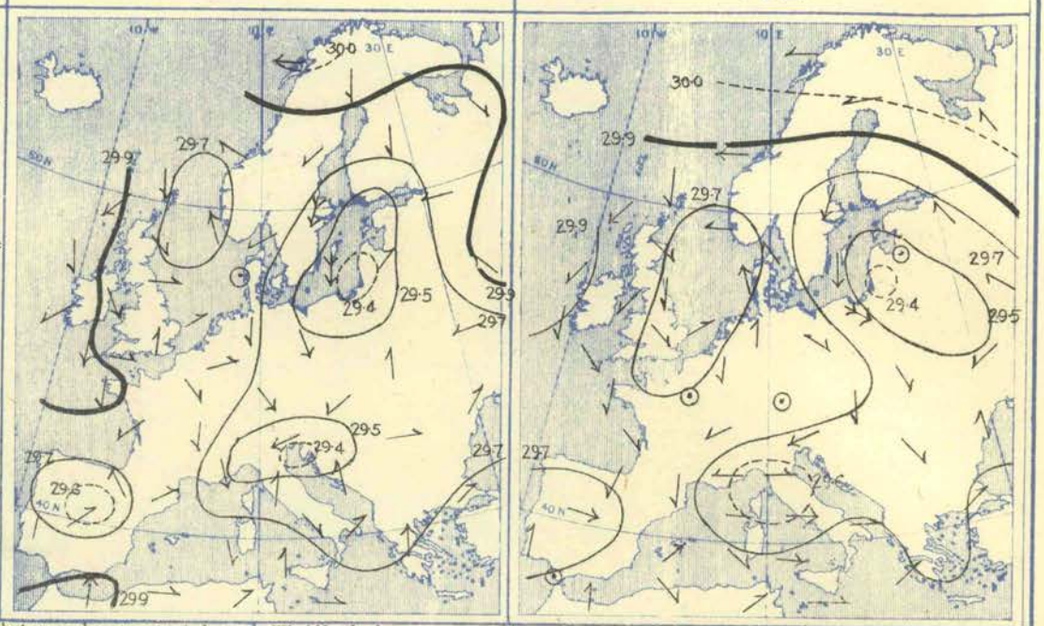
### Temperature and Weather. 8 a.m.



*Weather* in morning fair or fine over western Europe as a whole, but snow showers reported at several of our own northern stations. Cloudy or dull in most of the eastern, central and southern countries, with snow over north Germany, the Baltic and the Gulf of Finland, as well as at Kharkov. Rain falling at Madrid and also at Athens. Snow or hail showers occurring later over the whole of our Islands and the neighbouring parts of the Continent—heavily in places. Snow falling also at most of the Russian stations.

*Temperature* fallen over the western, northern and central countries, and also in Italy, risen elsewhere. Morning readings highest, 63 at Algiers, 61 at Patras, and 59° at Cagliari; above 50° at most of the Mediterranean and Spanish coast stations. Lowest, −19° Fahr. at Archangel, −1° at Kuopio, 0° zero at Uleaborg, and +1° at Haparanda and Hernösand; below the freezing point over northern and central Europe generally, and also over the major part of Great Britain. Daily maxima below 40° at most of our own northern and eastern stations; thermometer at Spurn Head not exceeding 33°. Sharp frost occurring over nearly the whole of our Islands at night.

### Barometer and Wind. 8 a.m. 6 p.m.

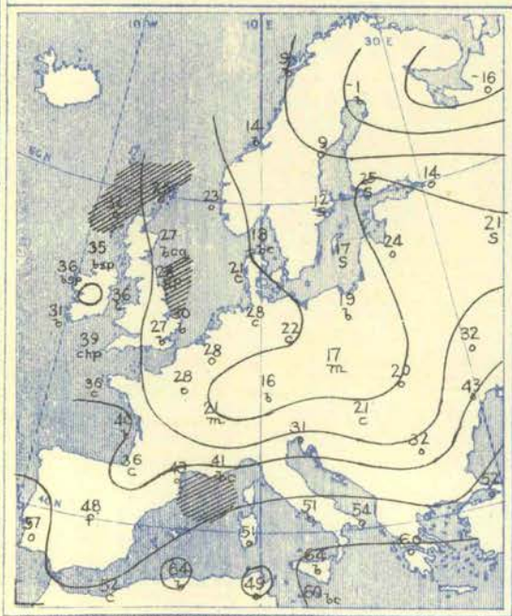


*Wind* Northerly on our own western and extreme northern coasts, and strong in force in some exposed places; light from the Westward or South-Westward on our east coast. South-Easterly or Easterly in the west of Norway; Northerly or North-Easterly over Finland, Sweden, Denmark and north Germany, with a gale at Stockholm, Wisby and Swinemunde, Northerly or North-Westerly in France; Westerly or South-Westerly in Italy; Southerly or South-Easterly over the greater part of the Spanish Peninsula. Subsequently veering to the Northward in the north of England. Strong Westerly winds setting in over Italy.

*Barometer* highest, 30·0 ins. and upwards in the north of Norway; 29·9 ins. and upwards over Ireland and also over central Russia. Lowest, 29·4 ins. and less in a depression over the Baltic and also in two other disturbances lying over the Gulf of Genoa and over the northern part of the Adriatic; 29·6 ins. and less in an area over central Spain; 29·7 ins. and less in a shallow depression over the northern parts of the North Sea. North Sea depression subsequently moving southwards and barometer rising a little on our northern coasts.

## Wednesday, 22nd March.

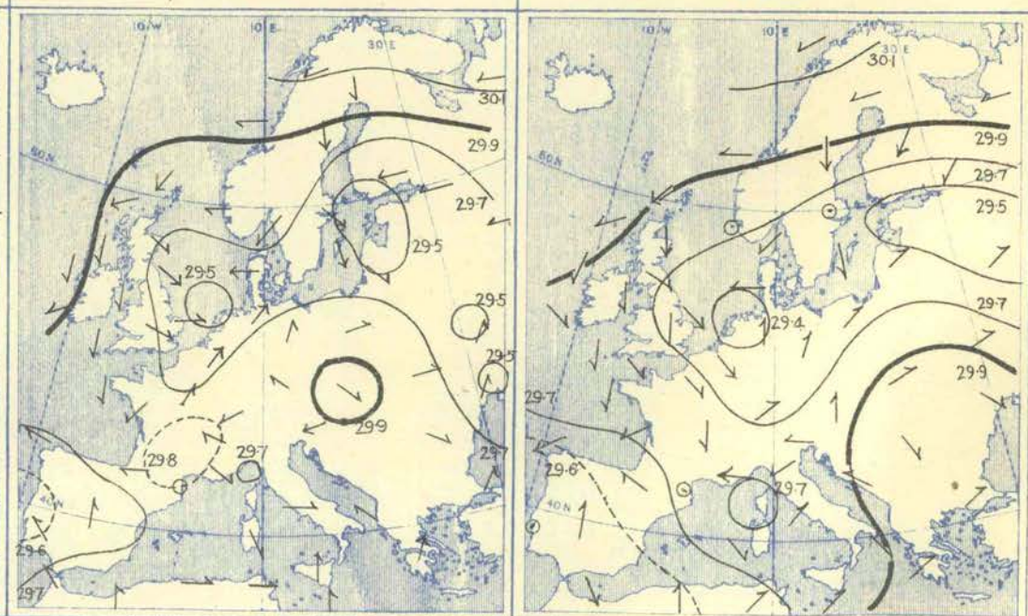
### Temperature and Weather. 8 a.m.



*Weather* in morning fair or fine over western and central Europe as a whole, but rather changeable in our Islands, with snow showers at several of our eastern and western stations; snow falling also in the south of Sweden and at Moscow. Dull in most of the eastern and southern countries. Snow showers occurring later in the north and east of our Islands generally, and also in France and Germany. Rain falling in many parts of southern Europe.

*Temperature* risen in many parts of Great Britain, France and the Netherlands, but fallen elsewhere. Morning readings highest, 64° at Palermo and Algiers, and 60° at Patras and Malta; above 50° at most of the Mediterranean and Spanish coast stations. Lowest, −16° Fahr. at Archangel, −1° at Haparanda, and +3° at Uleaborg; below 20° over northern Europe generally, and also at several of the German and Austrian stations; considerably below the freezing point in many parts of Great Britain. Daily maxima below 40° at all our more northern and eastern stations; thermometer at Aberdeen not exceeding 30°. Reaching 45° on some parts of our south-west coasts, and exceeding 50° in the west of France. Sharp frost occurring over the United Kingdom at night.

### Barometer and Wind. 8 a.m. 6 p.m.

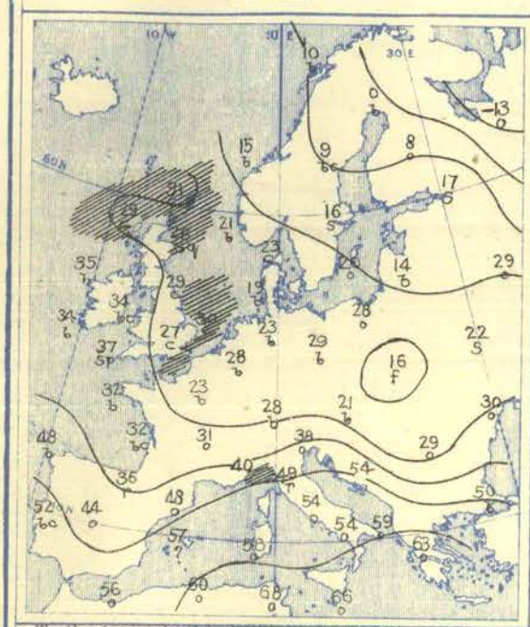


*Wind* light to fresh from the Northward or North-Westward over the greater part of our Islands, but strong from the North-Eastward in the north of Scotland, South-Westerly over the Netherlands and western Germany, moderate from North-East or East over Denmark and Norway. Light from the Eastward over northern Russia, strong from North or North-West in Sweden, light from the South-Westward in the south of Russia, South-Easterly or Easterly over the Spanish Peninsula, and also over southern Italy. No important change occurring during day

*Barometer* highest, 30·1 ins. and upwards in the extreme north of Europe, 29·9 ins. and upwards over Austria, and also off the west of Ireland. Lowest, 29·5 ins. and less in two depressions,—one lying over the southern part of the North Sea, and the other over the Baltic Provinces, and the northern part of the Baltic. 29·6 ins. and less in a third disturbance off the Portuguese coasts. Depression over North Sea subsequently moving slowly south-eastwards, and barometer rising over our Islands.

## Thursday, 23rd March.

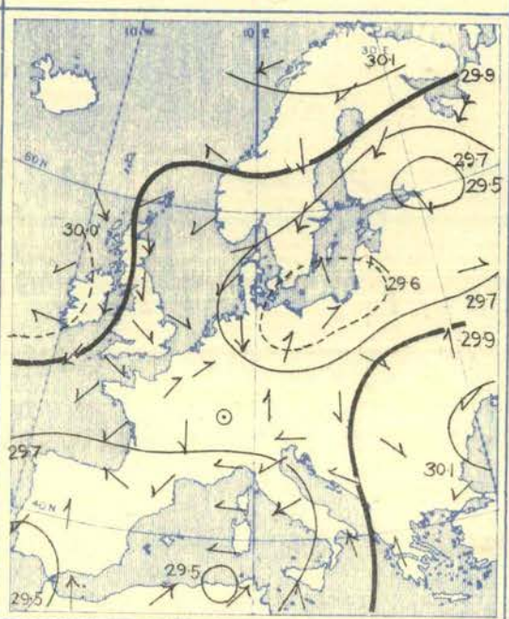
### Temperature and Weather. 8 a.m.



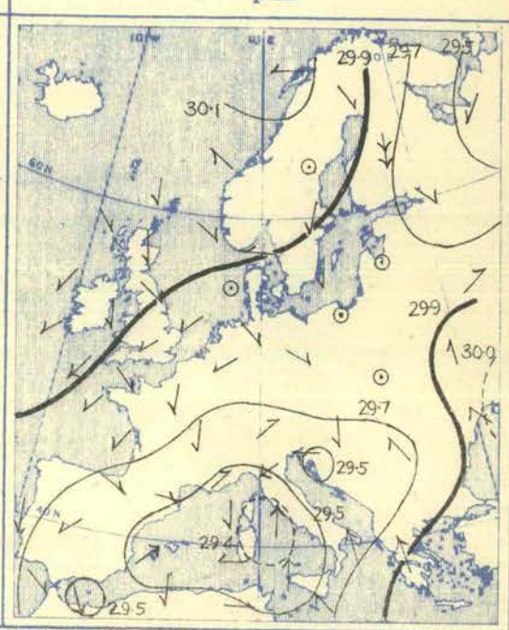
*Weather* in morning fair or fine over western and central Europe as a whole, but snow showers reported at several of the English stations, and also at Aberdeen. Dull in most of the southern countries, with rain over northern Italy and the extreme south of France; dull also over Russia and the Baltic; snow reported over the Gulf of Finland and the south of Sweden. Snow showers falling during day in nearly all parts of the United Kingdom, —heavily at some of the northern and eastern stations. Two mock suns seen at Stornoway.

*Temperature* risen in Scandinavia, Germany and Italy, changed rather irregularly elsewhere. Morning readings highest, 68° at Tunis, 64° at La Calle, and 63° at Patras; above 55° at several of the Mediterranean stations. Lowest, −13° Fahr. at Archangel, 0° zero at Haparanda, and +8° at Kuopio; considerably below the freezing point over northern Europe generally, and a few degrees below it in most parts of Great Britain and central Ireland. Daily maxima below 40° over Great Britain as a whole, thermometer at Shields not exceeding 32°; exceeding 59° at some stations in the west of France, and exceeding 60° over Spain and southern Italy. Sharp frost occurring over our Islands at night.

### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.

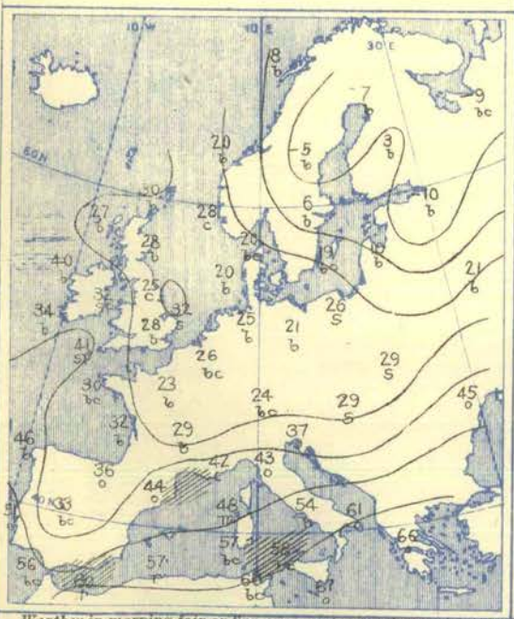


*Wind* moderate to fresh from the Northward in all the more northern parts of the United Kingdom, but drawing into North-West over eastern and central England, and into North-East or East on our south-west coasts. Northerly or North-Easterly over northern Europe generally, and strong in places, with a gale at Archangel, light from the Southward or South-Westward over the greater part of Germany. Easterly or North-Easterly over southern Europe as a whole, but South-Easterly over Greece and the Adriatic. Subsequently veering to the North-Eastward in the south-east of England; no important change occurring elsewhere.

*Barometer* highest, 30·1 ins. and upwards over the northern parts of Scandinavia, and also over the Black Sea; 30·0 ins. and upwards over, and to the westward of Ireland. Lowest, 29·5 ins. and less in two depressions,—one over the north-west of Russia, and the other over the south of Spain; 29·6 ins. and less in a third over north Germany and the Baltic. Russian depression subsequently moving north-eastwards: fresh disturbances forming over Italy and the Adriatic.

## Friday, 24th March.

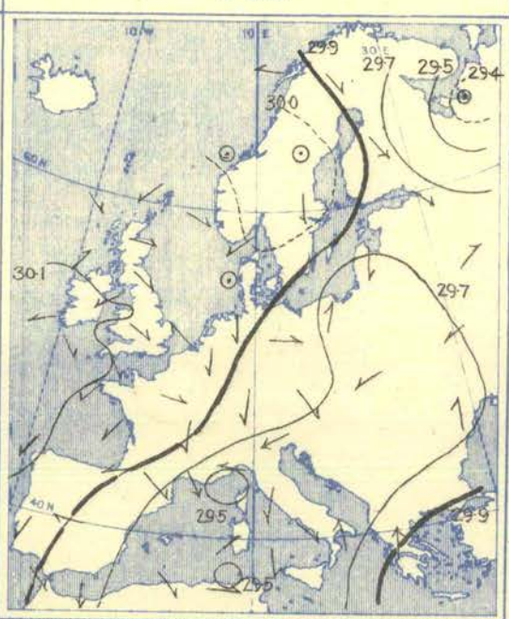
### Temperature and Weather. 8 a.m.



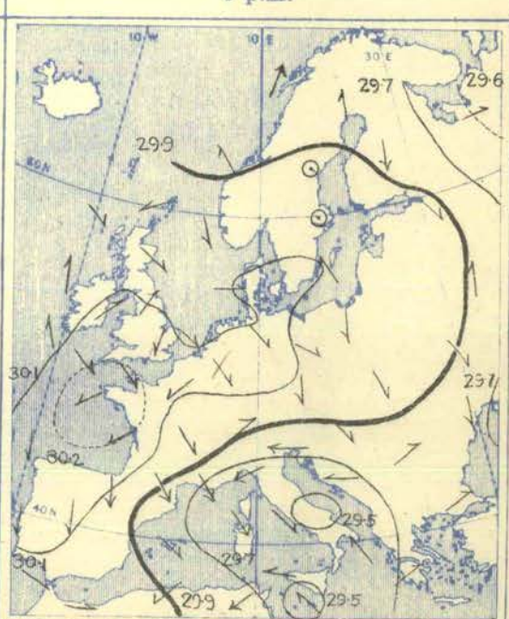
*Weather* in morning fair or fine over western and northern Europe generally, but snow showers reported in the north and east of England, as well as on some parts of our western coasts. Cloudy or dull in the central and south-eastern countries, with snow in many places. Dull over northern Italy, the extreme south of France and the north of Spain; fine in most other parts of southern Europe. Rain falling later over Italy and the Mediterranean (as much as 2·4 ins. at Malta and 2·6 ins. at Oran) and at night in Ireland also.

*Temperature* changed irregularly in our Islands and France, risen over Austria, Italy and the south of Russia, fallen elsewhere. Morning readings highest, 67° at Malta, 66° at Patras, and 65° at Athens; above 55° at many of the Mediterranean stations. Lowest, −10 Fahr. at St. Petersburg, below zero over all the northern parts of Sweden and Russia; considerably below the freezing point over northern and central Europe generally, and a little below it in many parts of the United Kingdom. Daily maxima, below 40° at several of our own northern and eastern stations, but thermometer beginning to rise briskly in Ireland. Sharp frost again occurring over Great Britain at night.

### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.

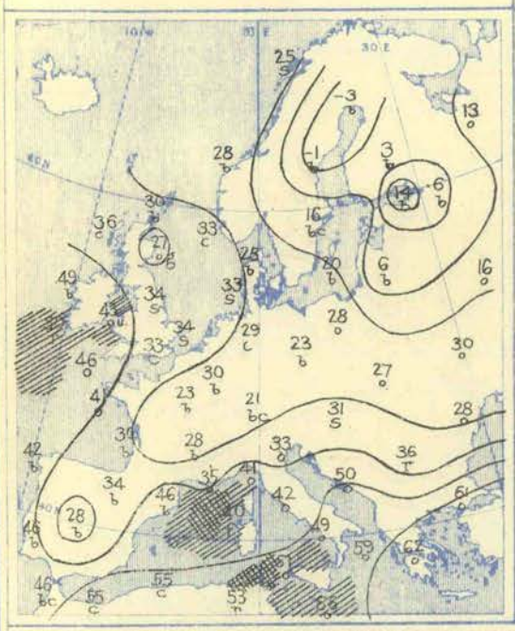


*Wind* rather variable in our Islands, but chiefly Northerly or North-Westerly and light or moderate in force. Northerly or North-Easterly over the greater part of France, Spain, and northern Italy, but a strong "mistral" blowing at Toulon. Easterly in the west of Norway. Northerly or North-Easterly over Sweden and Denmark. North-Westerly over Germany, Austria, and western Russia. Variable over the south of Russia, Greece, and southern Italy. Subsequently shifting to the Southward in Ireland; no important change elsewhere.

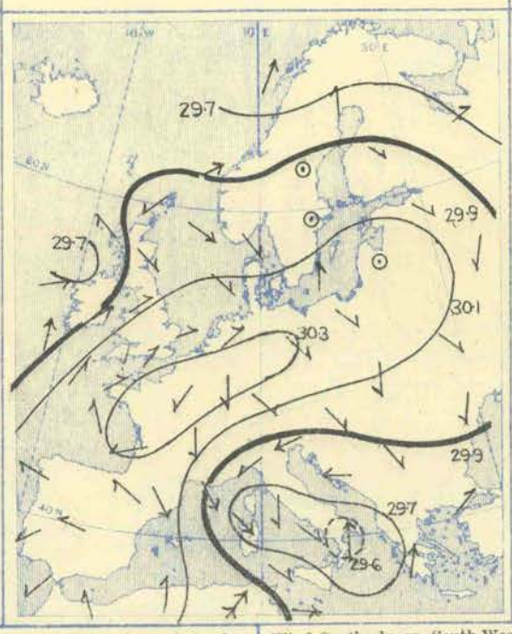
*Barometer* highest, 30·1 ins. and upwards in an anticyclone lying over the Bay of Biscay and the south-western parts of our Islands; 30·0 ins. and upwards over the southern parts of Scandinavia. Lowest, 29·4 ins. and less in a depression over the extreme north of Russia, 29·5 ins. and less in a small disturbance over the Gulf of Genoa. Anticyclone in south-west subsequently increasing in height and moving eastwards; depressions approaching the Irish coasts at night, and fresh disturbances forming over Italy and the Mediterranean.

## Saturday, 25th March.

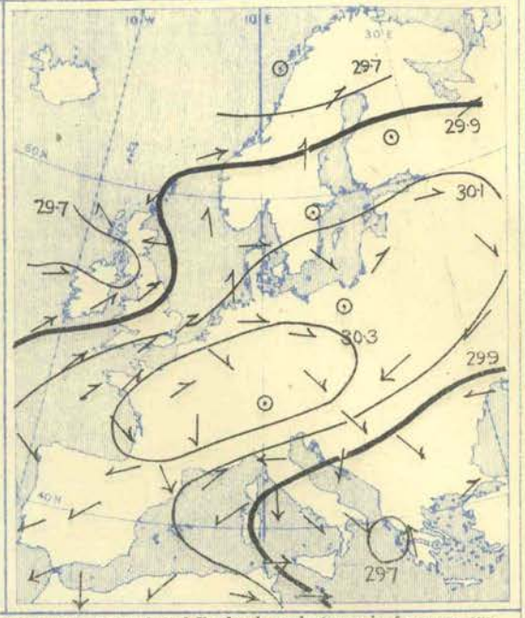
Temperature and Weather. — 8 a.m.



Barometer and Wind. — 8 a.m.



Barometer and Wind. — 6 p.m.



*Weather* in morning cloudy or dull over the greater part of our Islands, with rain in Ireland, and snow in Scotland and the extreme north of England. Fine over the western and northern parts of the Continent generally, but snow reported at Bodö and Fano. Dull over Italy, Austria, and south-eastern Europe, with rain at Hermanstadt and Patras, and snow at Buda-Pesth. Rain falling later over nearly the whole of our Islands and the adjacent parts of the Continent—heavily in places. Thunder and lightning occurring at Belmullet; parhelia seen at Oxford, and a lunar halo seen at Jersey.

*Temperature* risen in all but the southern countries. Morning readings highest, 62° at Athens, 61° at Patras and Constantinople, and 59° at Brindisi; above 60° at many of the Mediterranean stations. Lowest, -14° Fahr. at Helsingfors, -6° at St. Petersburg, and -3° at Haparanda; considerably below freezing over northern and central Europe generally, and slightly below it in many parts of Great Britain. Rising during day to 45° and upwards in the west and south of our Islands; and to 50° and upwards at some of our south-western stations. Exceeding 60° in the southern parts of Spain and Italy.

*Wind* Southerly or South-Westerly over Ireland and England, and strong in force on our western coasts; South-Easterly or Easterly in the west of Scotland. Light from the North-Westward in the north-east of Scotland, and moderate to fresh from the same quarter in the south of Norway, and also in Denmark, Germany, and Austria. South-Westerly over the northern parts of Russia and Scandinavia. Strong from the Eastward over the northern parts of Italy and the Adriatic, and from the North-Westward over the extreme south of France. Easterly over the Spanish Peninsula and the south-west of France.

*Barometer* highest, 30·2 ins. to 30·3 ins. and upwards in an anticyclone lying over Spain, France, and Germany. Lowest, 29·6 ins. and less in a depression over southern Italy; 29·7 ins. and less in another disturbance lying off our own extreme north-west coasts, and also over the extreme northern parts of Russia and Scandinavia. Depression over Italy subsequently moving eastwards, and disturbance off our north-west coasts spreading in a similar direction; secondary system forming over the north of England in evening.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇉ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

Over Europe as a whole the distribution of pressure was exceedingly complex. In the north-western and northern countries the weather during the greater part of the week was influenced by secondary depressions appearing in the rear of the disturbance which passed south-eastwards across northern Europe at the close of the preceding week. The larger and more important of these systems moved southwards or south-eastwards across Scandinavia and the North Sea, while the smaller depressions passed down over our Islands, the weather in the northern and north-western parts of Europe generally being very cold and inclement, with varying winds from the Northward and frequent falls of snow. Over Great Britain the cold weather, if less severe, was more prolonged than anything experienced so late in the season for many years past.

Over southern Europe the weather was influenced by numerous depressions which formed mainly over northern Italy and the neighbouring parts of the Mediterranean. These disturbances produced in some cases heavy falls of rain, and very strong winds from various quarters on the shores of the Mediterranean and Adriatic.

Towards the close of the week an important change set in over the north-western countries. On the 24th an anticyclone advanced over our Islands from the westward, while in its rear a series of depressions began to appear off our western coasts. The latter occasioned a shift of wind to the Southward or South-Westward over the whole of the United Kingdom, with a decided rise of temperature, and with rain in nearly all districts, preceded by snow in the northern parts of Great Britain.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 68.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 31·4 | ? | 37 | ? | WATERGATE (Emsworth) | 48·4 | ? | 57 | ? |
| STRATHPEFFER SPA | 23·7 | - 2·7 | 28 | - 4 | BRIGHTON | 43·5 | +13·0 | 51 | +14 |
| EDINBURGH | 31·6 | + 9·0 | 37 | +10 | BOGNOR | 48·0* | ? | 56* | ? |
| MORPETH | 31·9 | ? | 38 | ? | EASTBOURNE | 48·1 | +15·4 | 57 | +18 |
| NEWCASTLE-ON-TYNE | 27·3 | ? | 32 | ? | VENTNOR HOSPITAL | 51·7 | ? | 61 | ? |
| OSWALDKIRK (Yorkshire) | 32·8 | + 6·1* | 39 | + 7 | SOUTHPORT | 53·5 | ? | 63 | ? |
| HOLLESLEY BAY | 38·0 | ? | 45 | ? | COLWYN BAY | | ? | | ? |
| SHEFFIELD | 35·2 | ? | 41 | ? | ABERDOVEY | 49·4* | ? | 58* | ? |
| WORKSOP | 38·4 | +14·4 | 45 | +16 | TENBY | 47·9 | +13·4 | 56 | +15 |
| THURCASTON (Leicestershire) | 39·4 | +16·4 | 46 | +18 | NEWQUAY | 50·8 | +18·1 | 60 | +21 |
| PLUMSTEAD COMMON | 25·9 | ? | 30 | ? | TORQUAY | 47·3* | +14·3 | 56* | +26 |
| MARGATE | 35·8 | + 7·3 | 42 | + 8 | GUERNSEY | 45·3* | + 9·8 | 53* | +10 |
| WESTBOURNE (Emsworth) | 41·9* | + 9·4 | 49* | + 9 | | | | | |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

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VOL. XVI. NO. 13.] *Third Series.* WEEK ENDING SATURDAY, APRIL 1ST, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 74.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 58 | 26 | 47·9 | 36·4 | 42·0 | 2 above | 17 | + 4 | 16 | −17 | 116 | + 17 | 466 | − 32 |
| | 1. SCOTLAND, EAST | 63 | 26 | 50·0 | 36·0 | 42·8 | 2 above | 31 | +13 | 17 | −16 | 149 | + 16 | 520 | − 11 |
| | 2. ENGLAND, N.E. | 59 | 32 | 52·7 | 38·1 | 45·3 | 3 above | 39 | +20 | 11 | −17 | 229 | + 94 | 379 | − 83 |
| | 3. ENGLAND, EAST | 63 | 29 | 56·2 | 40·2 | 47·9 | 5 above | 49 | +26 | 5 | −25 | 277 | +109 | 377* | −145 |
| | 4. MIDLAND COUNTIES | 66 | 31 | 57·5 | 41·5 | 49·3 | 6 above | 53 | +25 | 1 | −30 | 295 | +112 | 417 | −103 |
| | 5. ENGLAND SOUTH | 66 | 33 | 55·7 | 43·4 | 49·4 | 5 above | 52 | +26 | 0 | −24 | 332 | +133 | 266 | −151 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 57 | 34 | 51·0 | 42·5 | 46·5 | 4 above | 32 | +15 | 0 | −25 | 184 | + 39 | 335 | − 46 |
| | 7. ENGLAND, N.W. | 58 | 36 | 53·4 | 43·6 | 48·3 | 5 above | 44 | +25 | 0 | −24 | 254 | +112 | 280 | −108* |
| | 8. ENGLAND, S.W. | 65 | 32 | 55·1 | 44·9 | 49·9 | 5 above | 55 | +30 | 0 | −19 | 347 | +121 | 217 | − 99 |
| | 9. IRELAND, NORTH | 60 | 38 | 53·8 | 45·2 | 49·4 | 6 above | 52 | +29 | 0 | −22 | 251 | + 57 | 286 | − 45 |
| | 10. IRELAND, SOUTH | 63 | 41 | 56·5 | 47·8 | 52·0 | 7 above | 70 | +41 | 0 | −17 | 369 | + 88 | 221 | − 33 |
| | —CHANNEL ISLANDS— | 61 | 40 | 55·5 | 47·1 | 51·2 | 4 above | 64 | +34 | 0 | − 7 | 521 | +222 | 80 | − 59 |

### Rainfall.

| | DISTRICTS. (See p. 74.) | For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 6 | 24 | 17 more | 60 | − 5 | 13·8 | 0·0 |
| | 1. SCOTLAND, EAST | 6 | 12 | 7 more | 53 | + 4 | 8·4 | + 1·0 |
| | 2. ENGLAND, N.E. | 4 | 4 | 0 (average) | 48 | + 1 | 5·2 | − 0·3 |
| | 3. ENGLAND, EAST | 4 | 3 | 1 less | 46 | 0 | 4·6 | − 0·7 |
| | 4. MIDLAND COUNTIES | 4 | 3 | 1 less | 44 | 0 | 7·1 | + 0·9 |
| | 5. ENGLAND, SOUTH | 3 | 1 | 3 less | 38 | − 5 | 6·0 | − 0·8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 6 | 21 | 13 more | 57 | + 3 | 13·3 | 0·0 |
| | 7. ENGLAND, N.W. | 5 | 7 | 2 more | 51 | + 2 | 9·0 | + 1·3 |
| | 8. ENGLAND, S.W. | 5 | 3 | 3 less | 49 | − 1 | 12·4 | + 2·6 |
| | 9. IRELAND, NORTH | 5 | 10 | 4 more | 62 | + 5 | 9·0 | − 0·1 |
| | 10. IRELAND, SOUTH | 4 | 9 | 2 more | 51 | − 1 | 12·5 | + 2·4 |
| | — CHANNEL ISLANDS— | 4 | 1 | 4 less | 48 | − 7 | 8·1 | − 0·4 |

### Bright Sunshine.

| | DISTRICTS. (See p. 74.) | For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 13 | −14 | 14 | −17 | 203 | + 32 | 23 | + 3 |
| | 1. SCOTLAND, EAST | 17 | −10 | 19 | −12 | 241 | + 32 | 29 | + 4 |
| | 2. ENGLAND, N.E. | 12 | −17 | 14 | −20 | 239 | + 33 | 28 | + 4 |
| | 3. ENGLAND, EAST | 19 | −12 | 21 | −16 | 354 | +105 | 39 | +12 |
| | 4. MIDLAND COUNTIES | 20 | − 8 | 22 | −10 | 289 | + 86 | 34 | + 9 |
| | 5. ENGLAND, SOUTH | 20 | −11 | 23 | −13 | 346 | +100 | 38 | +11 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 15 | −13 | 17 | −16 | 221 | + 22 | 26 | + 3 |
| | 7. ENGLAND, N.W. | 23 | − 4 | 26 | − 5 | 283 | + 74 | 32 | + 9 |
| | 8. ENGLAND, S.W. | 23 | −12 | 26 | −14 | 323 | + 57 | 36 | + 6 |
| | 9. IRELAND, NORTH | 16 | −10 | 18 | −12 | 266 | + 62 | 31 | + 8 |
| | 10. IRELAND, SOUTH | 18 | −13 | 20 | −17 | 286 | + 40 | 33 | + 5 |
| | — CHANNEL ISLANDS— | 31 | − 4 | 35 | − 7 | 354 | + 74 | 41 | + 8 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was mild and unsettled very generally, with frequent and considerable falls of rain in the west and north, and occasional slight falls in the more southern and eastern parts of the Kingdom.

*Temperature* was above the mean, the excess ranging from 2° in Scotland N. and E. to 6° in the Midland counties and Ireland N., and to 7° in Ireland S. The highest of the maxima were recorded, as a rule, on April 1st, and ranged from 66° in England S., and the Midland counties and 65° in England S.W., to 57° in Scotland W. The lowest of the minima were registered on the 26th, when they ranged from 26° in Scotland N. and E., and 29° in England E., to 40° in the Channel Islands and 41° in Ireland S.

*Rainfall* greatly exceeded the mean in Scotland, especially in the west and north, and to a lesser extent over Ireland and in England N.W., but in almost all the English districts the fall was less than the normal

*Bright Sunshine* was deficient in all parts of the Kingdom, the percentage of the possible duration ranging from 35 in the Channel Islands, and from 26 in England N.W. and S.W., to 14 in Scotland N. and England N.E.

*Barometer and Wind.*—During this period depressions continued to approach the north-western and northern parts of our Islands from the Atlantic, and subsequently to pass away over Scandinavia and the Baltic, thus affecting chiefly the northern parts of our area. They were not often deep, but that observed on Wednesday caused a slight Westerly gale at some of our western stations, and fresh to strong South-Westerly to Westerly breezes elsewhere. During the other days of the period the wind was mainly light or moderate in force, and varied in direction between South and West.

297 | 90 Wy. & S., Ltd.
613 | 70 4 | 99.

* This value has been altered owing to the receipt of further information for a preceding week

# II.—DATA from which the SUMMARY on page 73 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 49 | 26 | 44·3 | 32·3 | 38·1 | − 1·5 | 6 | 34 | 5 | 1·25 | + 0·71 | * | * | * | * |
| | Stornoway | 52 | 32 | 48·1 | 36·0 | 41·9 | + 1·1 | 17 | 24 | 7 | 3·00 | + 2·25 | 14·2 | −11·9 | 16 | −15 |
| | Wick | 58 | 29 | 49·7 | 35·3 | 42·3 | + 1·6 | 30 | 19 | 5 | 1·41 | + 1·01 | * | * | * | * |
| | Lairg $ | 57 | 30 | 47·4 | 34·2 | 40·6 | + 0·8 | 15 | 30 | 7 | 1·80 | + 1·15 | * | * | * | * |
| | Glencarron $ | 51 | 33 | 47·0 | 37·8 | 42·3 | + 2·5 | 20 | 12 | 7 | 4·25 | + 3·00 | * | * | * | * |
| | Fort Augustus $ | 54 | 31 | 49·5 | 39·0 | 44·1 | + 3·3 | 27 | 8 | 6 | 1·35 | + 0·85 | 8·5 | −11·3 | 10 | −12 |
| | Fort William $ | 54 | 34 | 49·5 | 40·0 | 44·6 | + 2·8 | 27 | 6 | 7 | 3·96 | + 2·98 | 9·8 | −14·8 | 11 | −18 |
| 1. SCOTLAND E. | Nairn | 58 | 29 | 50·7 | 34·4 | 42·3 | + 1·0 | 34 | 21 | 6 | 1·33 | + 1·04 | * | * | * | * |
| | Aberdeen | 63 | 26 | 50·6 | 35·6 | 42·9 | + 1·3 | 33 | 18 | 6 | 1·04 | + 0·54 | 22·8 | − 7·2 | 26 | − 9 |
| | Braemar $ | 53 | 29 | 45·3 | 33·8 | 39·4 | + 1·1 | 9 | 30 | 7 | 1·11 | + 0·63 | 17·5† | −10·3† | 20† | −12† |
| | Ochtertyre $ | 59 | 33 | 51·9 | 37·6 | 44·5 | + 3·0 | 36 | 12 | 7 | 1·80 | + 1·15 | * | * | * | * |
| | Leith | 58 | 31 | 52·7 | 37·6 | 44·9 | + 2·2 | 39 | 12 | 6 | 0·96 | + 0·58 | * | * | * | * |
| | Marchmont $ | 57 | 32 | 48·6 | 37·0 | 42·6 | + 2·0 | 25 | 14 | 6 | 0·75 | + 0·17 | 14·3 | −11·2 | 16 | −14 |
| 2. ENGLAND, N.E. | Alnwick Castle | ? | 32 | ? | 37·3 | ? | ? | ? | ? | 5 | 0·63 | + 0·08 | * | * | * | * |
| | Durham | 59 | 33 | 51·9 | 37·1 | 44·3 | + 2·5 | 37 | 14 | 4 | 0·43 | − 0·09 | 12·2 | −15·1 | 14 | −19 |
| | Shields | 57 | 32 | 52·3 | 38·1 | 45·0 | + 3·1 | 37 | 11 | 5 | 0·52 | + 0·09 | * | * | * | * |
| | Scarborough $ | 57 | ?34 | 53·2 | ?37·8 | ?45·3 | ? + 2·4 | ?41 | ?12 | 3 | 0·21 | − 0·26 | 11·1 | ? | 12 | ? |
| | York | 58 | 32 | 54·9 | 38·6 | 46·5 | + 3·7 | 46 | 10 | 5 | 0·51 | + 0·08 | ?10·5 | ? −16·5 | ?12 | ? −19 |
| | Spurn Head | 55 | 34 | 51·0 | 39·7 | 45·2 | + 3·1 | 32 | 6 | 4 | 0·33 | − 0·01 | * | * | * | * |
| 3. ENGLAND, E. | Hillington $ | 60 | 34 | 56·4 | 40·7 | 48·3 | + 4·5 | 50 | 4 | 4 | 0·33 | − 0·07 | 20·3 | − 7·9 | 23 | −11 |
| | Yarmouth | 59 | 34 | 54·1 | 39·7 | 46·7 | + 4·3 | 43 | 6 | 4 | 0·29 | − 0·16 | * | * | * | * |
| | Geldeston | 61 | 35 | 55·0 | 40·0 | 47·3 | + 4·2 | 46 | 6 | 5 | 0·31 | − 0·09 | 13·2 | −18·8 | 15 | −23 |
| | Cambridge | 63 | 29 | 59·0 | 39·0 | 48·7 | + 4·9 | 60 | 8 | 3 | 0·33 | − 0·03 | 21·4 | − 9·9 | 24 | −12 |
| | Felixstowe | 62 | 35 | 56·0 | 40·1 | 47·8 | + 5·0 | 49 | 5 | 2 | 0·17 | ? | 23·7 | ? | 27 | ? |
| | Rothamsted | 62 | 34 | 56·7 | 41·4 | 48·8 | + 6·0 | 50 | 2 | 6 | 0·18 | − 0·27 | 16·6 | −13·5 | 19 | −16 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 61 | 35 | 56·7 | 40·1 | 48·2 | + 5·2 | 51 | 5 | 5 | 0·46 | + 0·03 | * | * | * | * |
| | Loughborough | 66 | 32 | 58·7 | 41·0 | 49·6 | + 6·0 | 57 | 3 | 5 | 0·37 | − 0·06 | * | * | * | * |
| | Stamford (Duddington) | 62 | 35 | 57·7 | 40·9 | 49·1 | + 5·8 | 54 | 3 | 5 | 0·30 | − 0·10 | * | * | * | * |
| | Cheadle ℳ | 61 | 37 | 55·3 | 41·4 | 48·1 | + 6·1 | 45 | 2 | 4 | 0·74 | + 0·19 | * | * | * | * |
| | Shirley (near Solihull) | 65 | 37 | 58·0 | 43·2 | 50·4 | + 7·8 | 58 | 0 | 4 | 0·31 | ? | * | * | * | * |
| | Churchstoke ℳ | 60 | 37 | 57·3 | 43·0 | 49·9 | + 7·8 | 55 | 0 | 4 | 0·25 | − 0·22 | 25·2 | − 3·8 | 29 | − 4 |
| | Hereford ℳ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 62 | 33 | 57·4 | 41·1 | 49·0 | + 6·5 | 53 | 3 | 3 | 0·13 | − 0·37 | 21·5 | − 7·6 | 24 | −10 |
| | Oxford | 65 | 31 | 58·7 | 41·6 | 49·9 | + 6·1 | 57 | 1 | 2 | 0·09 | − 0·32 | 19·7 | − 9·6 | 22 | −13 |
| 5. ENGLAND, S. | London | 66 | 33 | 59·6 | 42·3 | 50·7 | + 6·1 | 61 | 0 | 3 | 0·15 | − 0·24 | 15·7† | − 7·3† | 18† | − 9† |
| | Cranley ℳ | 62 | 33 | 57·8 | 41·0 | 49·2 | + 5·3 | 55 | 3 | 2 | 0·10 | ? | * | * | * | * |
| | Dungeness | 54 | 38 | 52·3 | 43·6 | 47·8 | + 4·3 | 41 | 0 | 4 | 0·05 | − 0·45 | * | * | * | * |
| | Hastings (St. Leonards) | 57 | 40 | 53·3 | 43·6 | 48·3 | + 4·3 | 44 | 0 | 3 | 0·12 | − 0·30 | 15·6 | −19·4 | 18 | −22 |
| | Southampton | 65 | 39 | 58·9 | 45·6 | 52·1 | + 7·1 | 71 | 0 | 3 | 0·11 | − 0·37 | 24·6 | − 8·9 | 28 | −11 |
| | Hurst Castle | 54 | 33 | 52·6 | 44·9 | 48·6 | + 4·4 | 46 | 0 | 2 | 0·12 | − 0·35 | * | * | * | * |
| | Shaftesbury ℳ | 60 | 37 | 55·5 | 43·1 | 49·1 | + 6·5 | 50 | 0 | 5 | 0·19 | − 0·29 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 53 | 35 | 49·3 | 41·3 | 45·2 | + 2·1 | 25 | 2 | 7 | 3·36 | + 2·13 | * | * | * | * |
| | Glasgow | 52 | 34 | 47·4 | 39·0 | 43·1 | + 1·3 | 20 | 8 | 6 | 1·90 | + 1·33 | 6·5 | −16·5 | 7 | −18 |
| | Glenlee $ | 57 | 38 | 53·2 | 42·7 | 47·8 | + 6·4 | 41 | 0 | 7 | 2·66 | + 1·79 | * | * | * | * |
| | Douglas (Isle of Man) | 55 | 43 | 54·0 | 46·0 | 49·9 | + 7·0 | 55 | 0 | 4 | 0·65 | − 0·04 | 23·8 | − 9·7 | 27 | −13 |
| 7. ENGLAND, N.W. | Stonyhurst | 54 | 38 | 51·9 | 42·5 | 47·1 | + 4·5 | 36 | 0 | 5 | 1·37 | + 0·65 | 20·0 | − 6·5 | 22 | − 9 |
| | Blackpool ℳ | 54 | 36 | 52·2 | 42·3 | 47·1 | + 4·2 | 36 | 0 | 6 | 0·70 | + 0·16 | 21·7 | − 3·8 | 24 | − 5 |
| | Manchester (Prestwich) | 58 | 40 | 54·4 | 42·8 | 48·4 | + 5·3 | 45 | 0 | 6 | 0·95 | + 0·39 | 18·1 | ? | 20 | ? |
| | Liverpool Obsy. (Bidston) | 55 | 36 | 54·3 | 43·0 | 48·5 | + 4·8 | 46 | 0 | 5 | 0·61 | + 0·16 | 15·4 | ? | 18 | ? |
| | Llandudno ℳ | 58 | 42 | 54·6 | 45·4 | 49·9 | + 5·0 | 55 | 0 | 3 | 0·25 | − 0·25 | 24·7 | − 1·4 | 28 | − 2 |
| | Holyhead | 56 | 39 | 52·7 | 45·3 | 48·9 | + 4·3 | 48 | 0 | 3 | 0·47 | − 0·03 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 61 | 35 | 56·7 | 43·3 | 49·8 | + 5·7 | 55 | 0 | 7 | 0·74 | − 0·01 | * | * | * | * |
| | Pembroke | 52 | 40 | 50·7 | 45·3 | 47·9 | + 3·2 | 41 | 0 | 4 | 0·40 | − 0·13 | 12·7 | −22·0 | 14 | −26 |
| | Clifton | 57 | 39 | 55·5 | 44·8 | 50·0 | + 5·9 | 56 | 0 | 3 | 0·25 | − 0·31 | * | * | * | * |
| | Arlington (N. Devon) | 57 | 32 | 53·9 | 42·0 | 47·8 | + 6·2 | 41 | 0 | 6 | 0·48 | − 0·30 | * | * | * | * |
| | Cullompton ℳ | 65 | 38 | 60·0 | 44·5 | 52·0 | + 6·7 | 70 | 0 | 3 | 0·10 | − 0·37 | 25·8 | − 5·7 | 29 | − 6 |
| | Falmouth | 58 | 44 | 56·2 | 47·7 | 51·8 | + 6·4 | 69 | 0 | 4 | 0·25 | − 0·38 | 28·8 | − 6·2 | 33 | − 8 |
| | Plymouth | 58 | 45 | 54·9 | 47·5 | 51·1 | + 5·0 | 64 | 0 | 4 | 0·19 | − 0·39 | 20·4 | −13·6 | 23 | −17 |
| | Prawle Point | 55 | 38 | 52·9 | 44·4 | 48·5 | + 3·7 | 46 | 0 | 5 | 0·17 | − 0·30 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 54 | 38 | 50·7 | 44·4 | 47·5 | + 3·8 | 39 | 0 | 7 | 0·87 | ? | * | * | * | * |
| | Londonderry | 58 | 41 | 55·6 | 44·4 | 49·8 | + 5·5 | 55 | 0 | 6 | 0·88 | + 0·21 | * | * | * | * |
| | Edenfel (Omagh) | 56 | 40 | 53·3 | 44·1 | 48·6 | + 6·6 | 46 | 0 | 5 | 1·03 | + 0·43 | * | * | * | * |
| | Belmullet | 54 | 45 | 52·3 | 46·7 | 49·4 | + 4·5 | 52 | 0 | 6 | 1·33 | + 0·55 | * | * | * | * |
| | Markree Castle | 60 | 43 | 56·7 | 45·9 | 51·1 | + 7·3 | 64 | 0 | 4 | 1·00 | + 0·41 | 18·4 | − 7·9 | 21 | −10 |
| | Armagh | 58 | 43 | 55·0 | 45·1 | 49·9 | + 7·0 | 55 | 0 | 5 | 0·77 | + 0·32 | 13·0 | −12·9 | 15 | −14 |
| | Donaghadee | 58 | ?39 | 53·0 | 45·6 | 49·2 | + 5·0 | 50 | 0 | 5 | 0·93 | + 0·40 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 60 | 47 | 58·2 | 48·8 | 53·4 | + 8·2 | 80 | 0 | 3 | 0·32 | − 0·16 | 22·2 | − 9·1 | 25 | −12 |
| | Parsonstown | 60 | 41 | 56·7 | 45·7 | 51·0 | + 7·2 | 63 | 0 | 4 | 0·57 | + 0·02 | 16·4 | −12·4 | 19 | −15 |
| | Kilkenny | 61 | 43 | 57·6 | 47·1 | 52·2 | + 7·4 | 71 | 0 | 4 | 0·47 | − 0·05 | * | * | * | * |
| | Roche's Point | 61 | 46 | 54·7 | 48·1 | 51·3 | + 5·2 | 65 | 0 | 5 | 0·87 | + 0·15 | * | * | * | * |
| | Valencia | 59 | 45 | 55·3 | 48·0 | 51·5 | + 4·2 | 67 | 0 | 6 | 1·29 | + 0·49 | 14·7 | −18·8 | 17 | −22 |
| | Killarney | 63 | 46 | 57·8 | 48·3 | 52·9 | + 7·3 | 76 | 0 | 3 | 1·91 | ? | * | * | * | * |
| | Foynes | 60 | 45 | 55·3 | 48·6 | 51·9 | + 7·6 | 69 | 0 | 4 | 0·49 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 58 | 43 | 56·1 | 48·4 | 52·1 | + 5·0 | 71 | 0 | 4 | 0·15 | − 0·39 | 22·8 | ? | 26 | ? |
| | Jersey | 61 | 40 | 54·9 | 45·7 | 50·2 | + 3·5 | 57 | 0 | 4 | 0·12 | − 0·46 | 32·0 | − 7·0 | 36 | −10 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked $ with the Scottish Meteorological Society.

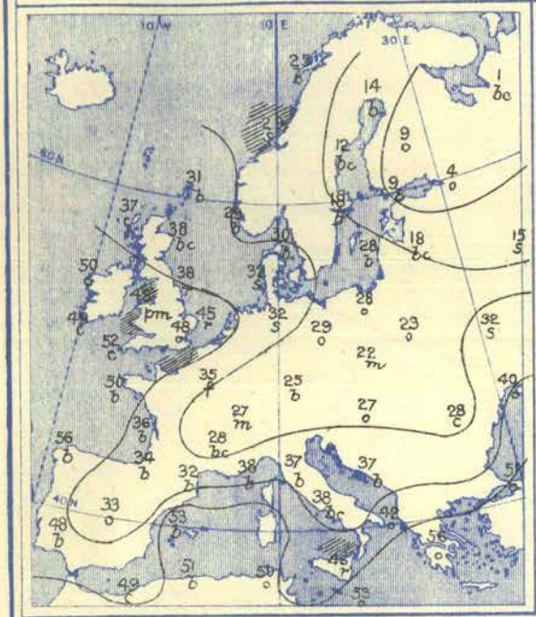
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College Westminster. For additional Reports of Sunshine, see last page.

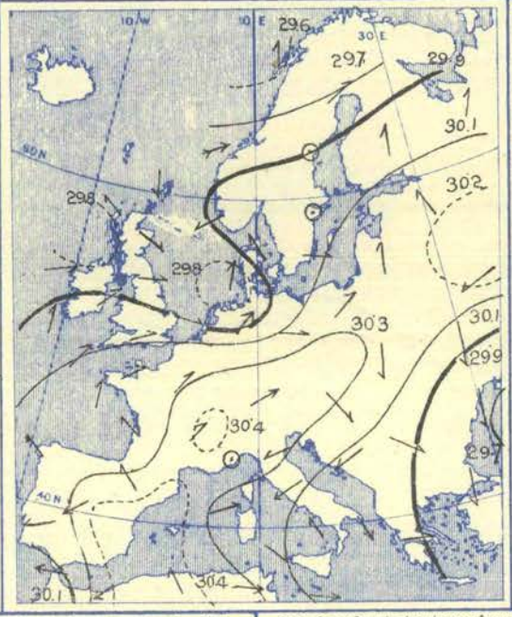
Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake. The reports from Ardrossan have now ceased.

## Sunday, 26th March.

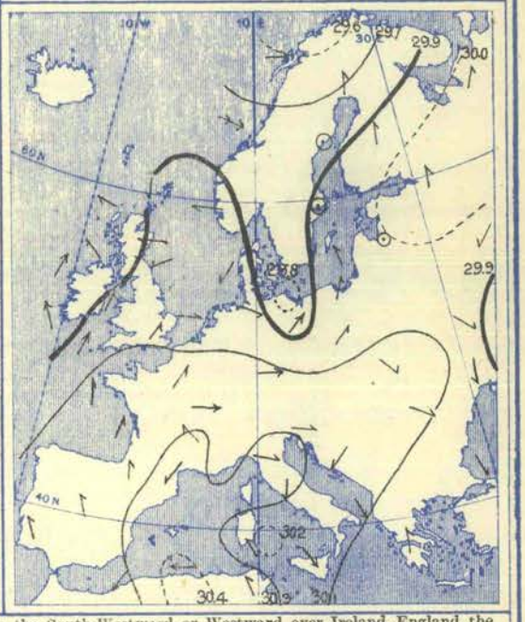
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull in our Islands, with rain over the south of Scotland and the northern parts of Ireland and England. Fine over the greater part of the Continent, but snow falling in Denmark and north Germany, as well as at Christiansund, Moscow, and Kiev; dull in Austria, Greece, and southern Italy, with rain at Palermo. A little rain falling later in the western, northern, and eastern parts of our Islands generally, and snow in several parts of northern Europe. Solar and lunar halos seen at some of the English stations.

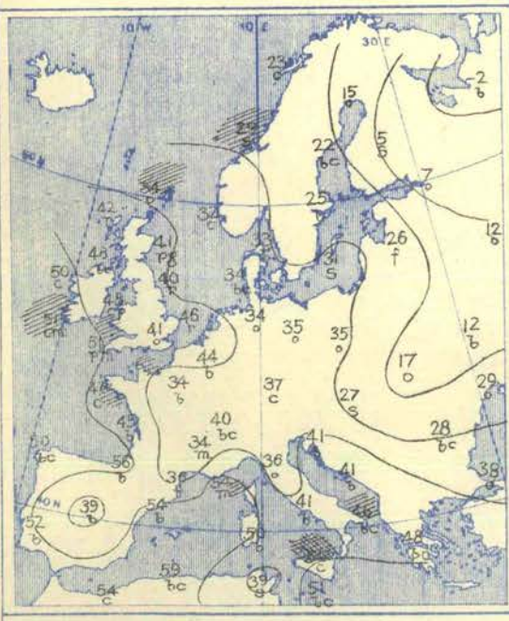
*Temperature* fallen in Austria and Italy, risen elsewhere—several degrees in Ireland and England. Morning readings highest, (1) 56° at Corunna, 54° at Oporto, and 53° at Barcelona, San Fernando, and Malta; (2) 52° at Scilly, and 50° at Brest. Lowest, 1° at Archangel, 4° at St. Petersburg, 9° at Kuopio, and 12° at Hernösand; below the freezing point over northern and central Europe generally. Rising during day to between 50° and 55° at most of the English and Irish stations, and to 58° at Parsonstown; exceeding 60° in many parts of southern Europe, and reaching 68° at Oporto.

*Wind* moderate to strong from the South-Westward or Westward over Ireland, England, the Netherlands, Germany, and the north of France; Southerly in Denmark; variable in the south of Scandinavia, and also in the north of Scotland. Light from the South-Eastward in the west of France; moderate to strong from the Eastward or North-Eastward over the Spanish Peninsula, and from the Northward (North-Eastward to North-Westward) over Italy, Austria, and the south of Russia. Subsequently backing to the Southward on our own western coasts; no important change occurring elsewhere.

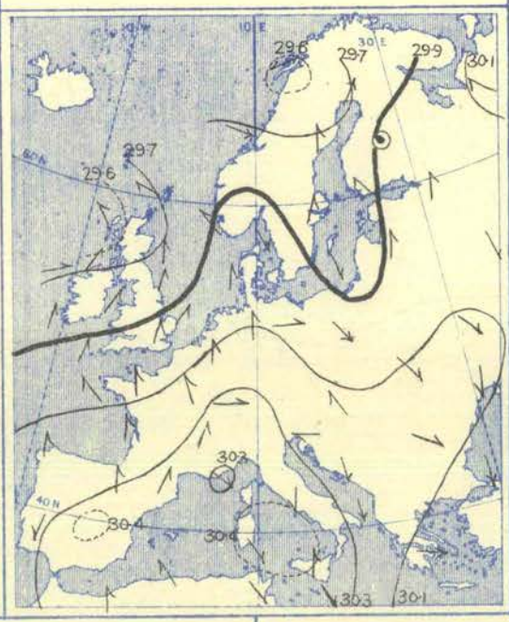
*Barometer* highest, 30·4 ins. and upwards over Spain and Morocco; 30·2 ins. and upwards in an anticyclone covering the central and south-western parts of Europe generally. Lowest, 29·6 ins. and less in a depression lying off the northern parts of the Norwegian coasts; 29·8 ins. and less in two other disturbances—one lying off the west of Scotland, and the other over the southern parts of the North Sea. Depressions off Norwegian coasts and over North Sea subsequently moving eastwards; new disturbance approaching our own western coasts at night.

## Monday, 27th March.

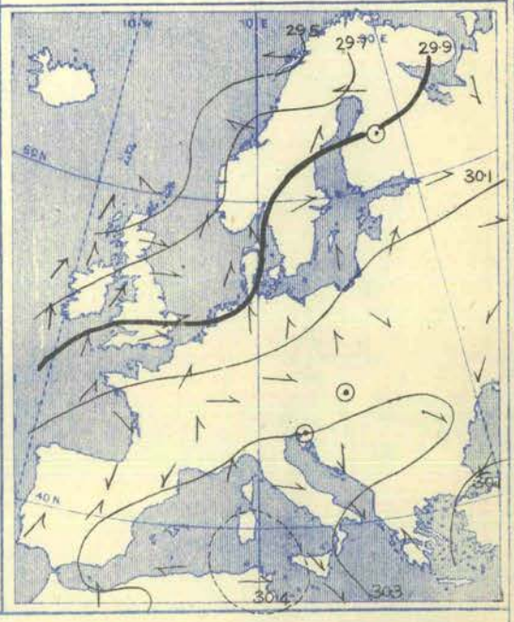
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the Mediterranean and France; changeable and unsettled over our Islands, with showers in places; dull and unsettled over the northern parts of the Continent, with snow locally and cold rain. Further rain showers reported in many parts of our Islands, with intervals of bright weather.

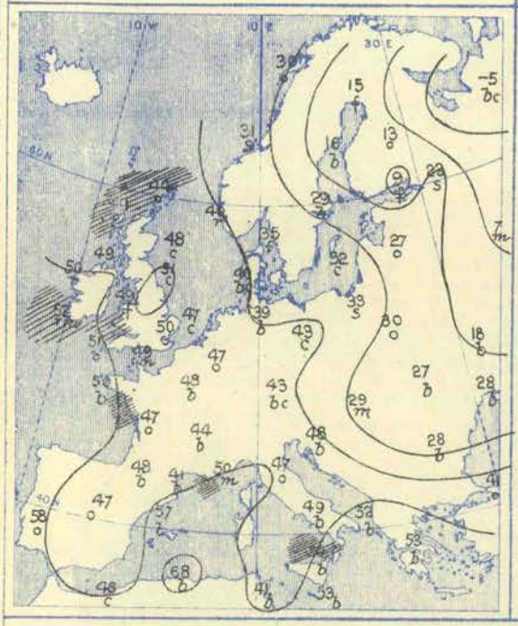
*Temperature* risen over western Russia, and central Europe and France. Morning readings highest, 59° at Algiers, 54° at Barcelona and Toulon, 56° at Biarritz, 51° at Scilly and Valencia, 50° at Belmullet. Lowest, (1) −2° Fahr. at Archangel, +5° at Kuopio, 12° at Moscow, 19° at Helsingfors and Karlstadt; (2) 12° at Lemberg, 27° at Buda-Pesth; (3) 34° both at Paris and Sumburgh Head. Rising later to between 55° and 59° over many parts of Ireland and England; exceeding 60° over France and southern Europe, and reaching 73° at Bilbao.

*Wind* variable, both in direction and force; (1) light over southern and central Europe, and over Russia; moderate to fresh, and gusty, over our Islands—from between South-West and South-East in direction; (2) North-Westerly in the south of Sweden and north-western Germany. Becoming Westerly to South-Westerly all over our Islands later, and inclined to freshen at our western and south-western ports.

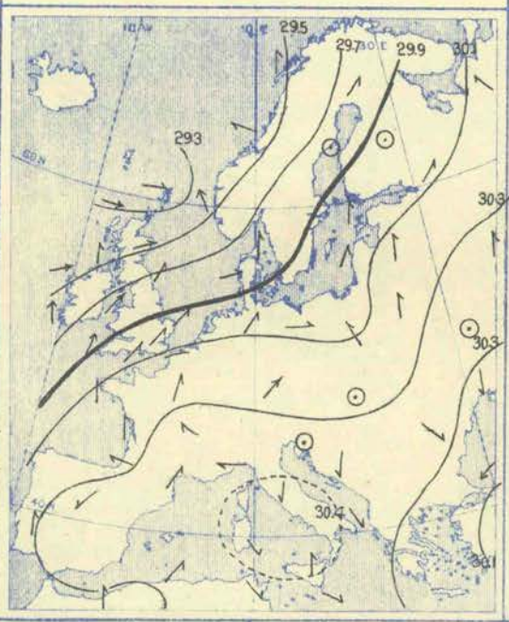
*Barometer* highest, 30·4 ins. and more to 30·3 ins. over the Mediterranean, with Italy, Spain, and the south of France, and exceeding 30·0 ins. over Holstein, and also over the north of Russia. Lowest, (1) 29·6 ins. and less off our own north-west coasts, and over Finmark; and below 29·9 ins. in a "V"-shaped depression over the Baltic. Depression off our north-west coasts subsequently moving north-eastwards; new disturbance approaching Ireland in evening.

## Tuesday, 28th March.

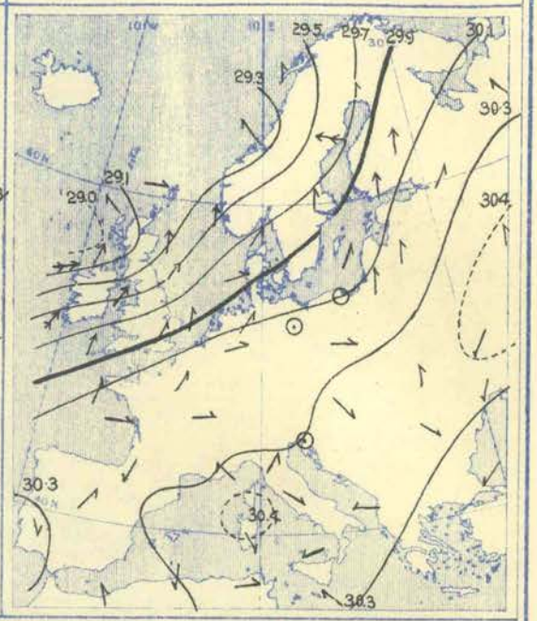
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the Mediterranean, France, and the south-eastern parts of England; fair over Germany; unsettled, squally, and showery in the west and north of our Islands, and the west of Norway. Rain falling later over all the western and northern parts of our Islands—in considerable quantity at some of our north-western ports—but fair over France and Germany. Snow falling at some of the Scandinavian stations.

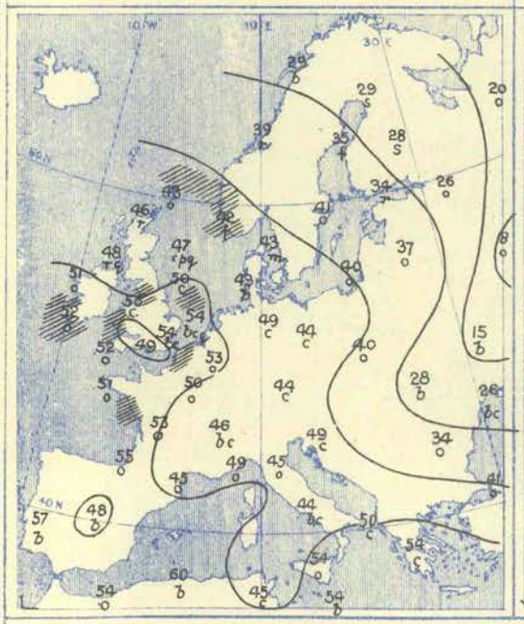
*Temperature* risen somewhat over our Islands and their neighbourhood, briskly over France. Morning readings highest, 68° at Algiers, 57° at Barcelona, 54° at Leghorn, 52° at Valencia, 51° at Scilly, 50° in London, at Roche's Point, Donaghadee, and Nairn. Lowest, −5° at Archangel, +7° at Moscow, 13° at Kuopio, 18° at Kieff, 28° at Vienna, 30° at Breslau. Rising later to 51° at Jersey, 59° at Munich and Wiesbaden, 58° at York, and to 55° and more in many parts of Great Britain. Exceeding 60° in most parts of France and southern Europe, and reaching 73° at Bordeaux.

*Wind* very light and variable over southern, south-eastern, and eastern Europe; South-Westerly and strong over the western and northern parts of our Islands. South-Westerly, moderate, in the south-east and east; Southerly to South-Easterly over Scandinavia. Increasing later to a gale from the South-Westward over the western parts of the United Kingdom; continuing light over the southern and eastern countries.

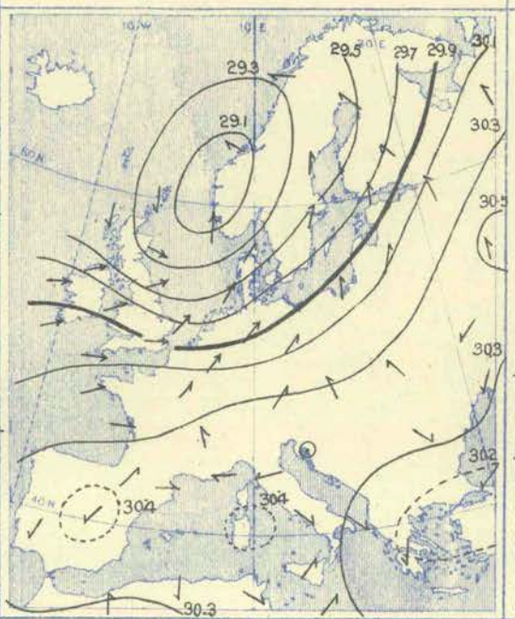
*Barometer* highest, 30·4 ins. and more over Italy, Sardinia, Sicily, and the adjoining parts of the Mediterranean, and exceeding 30·2 ins. over the southern half of Europe generally. Lowest, 29·3 ins. and less in a depression off our northern coasts, and below 29·6 ins. at Valencia (Ireland). A new depression advancing east-north-eastwards over Scotland later, and a recovery of pressure ensuing at our western stations.

## Wednesday, 29th March.

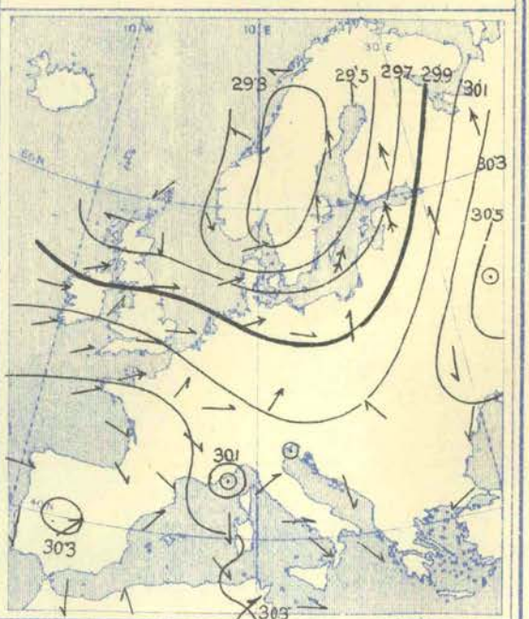
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the Mediterranean and south-western and southern Europe, as well as over the southern parts of Russia; fair over the southern parts of our Islands, but rainy in the north and north-west; unsettled over the countries lying to the eastward of the North Sea, with rain and snow in places. Considerable rain in Scotland and Norway later, and small quantities on our west and south-west coasts. Rain also at Lorient and Belfort.

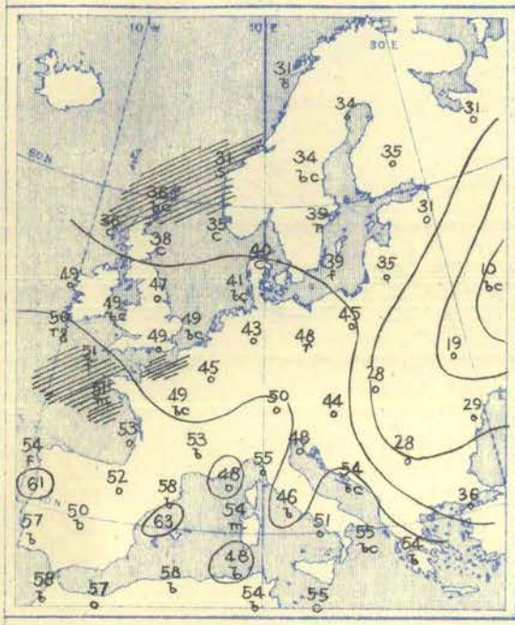
*Temperature* beginning to fall in Scotland, risen quickly over Sweden, Finland, and the north of Russia. Morning readings highest, 60° at Algiers and Oran, 55° at Biarritz, 53° at Jersey, 52° at Scilly and Valencia. Lowest, 8° at Moscow, 26° at St. Petersburg and at Kiev, 29° at Haparanda and Bodö; rising later to between 55° and 60° in most parts of our Islands; exceeding 60° in many parts of France and southern Europe, and reaching 75° at San Fernando.

*Wind* (1) Westerly and fresh over Ireland; West-South-West strong over England; South-Westerly to Southerly on the eastern shores of the North Sea, and Easterly to South-Easterly over the north of Scandinavia; (2) very light and variable over southern and eastern Europe. Subsequently veering to the Westward or North-Westward on the eastern shores of the North Sea, and increasing to a gale at Skudesnaes.

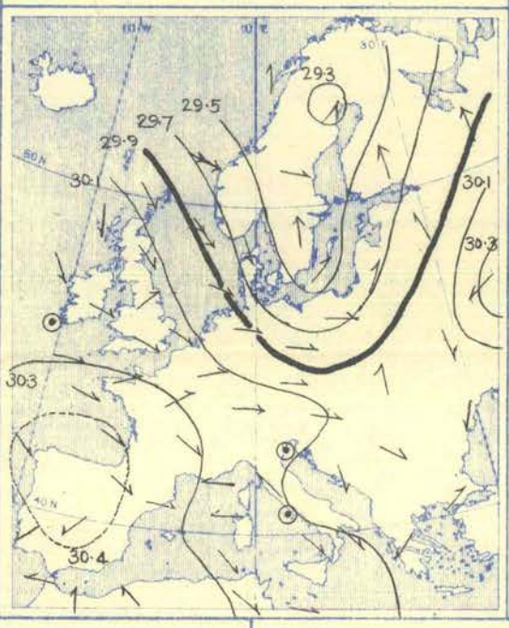
*Barometer* highest, 30·5 ins. and more to 30·4 ins. over Russia, and exceeding 30·3 ins. over the whole of southern Europe and the Mediterranean. Lowest, 29·1 ins. and less in a depression off the west of Norway. Gradients steep over the north-western districts; slight in the south and east. Rising in our Islands later, and secondary disturbance appearing off the north-west of Scotland. Depression off the west of Norway moving eastwards.

## Thursday, 30th March.

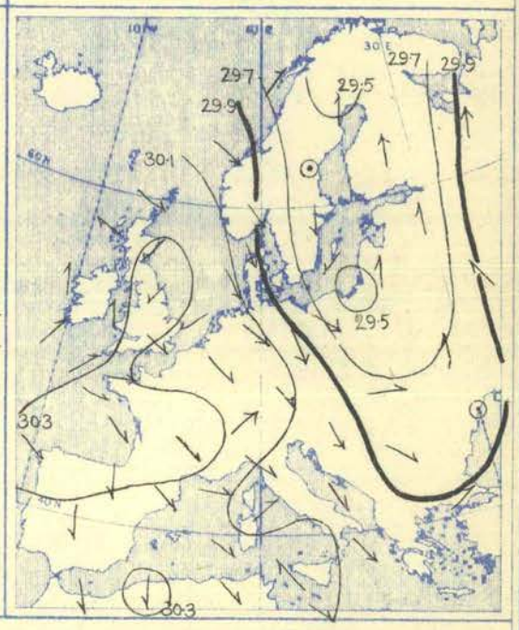
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning fine over south-western Europe, fair over France, rainy over the south-west of the British Islands, unsettled over northern Europe, the Baltic and Russia, with rain and snow in several places. Rain later almost all over our Islands and Germany, with snow in Scotland; fog becoming very prevalent on our south-western and southern coasts, and at Jersey.

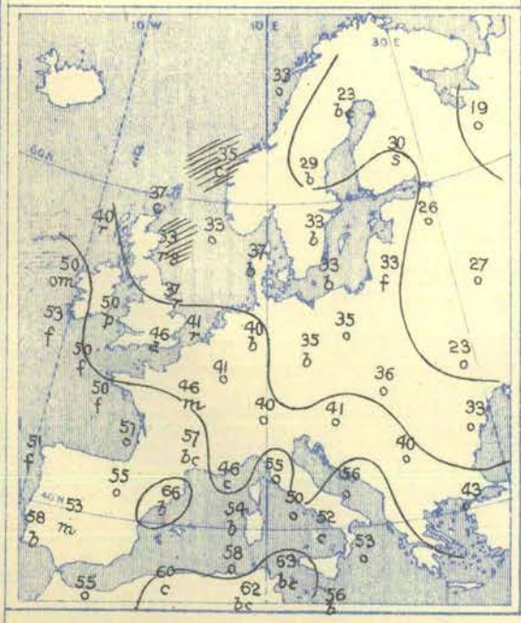
*Temperature* fallen in most parts of the United Kingdom and neighbourhood, and also over Germany. Morning readings highest, 63° at Barcelona, 61° at Oporto, 55° at Lorient, 50° in the south of Ireland, 49° at Paris and in London. Lowest, 10° at Moscow, 19° at Kieff, 31° at Archangel, St. Petersburg, and Christiansund, 34° at Hernösand. Rising later to between 55° and 60° over England; exceeding 65° in many parts of southern Europe and reaching 76° at Madrid.

*Wind* very variable (1) Southerly over the north-west of Russia, but North-Westerly to Northerly over Scandinavia, and strong in many places; (2) North-Westerly to Easterly over Scotland, Westerly over England and central Europe; (3) very light and variable over southern and south-western Europe and in the south of Ireland. Becoming very variable over our western districts later, but finally shifting to the Southward.

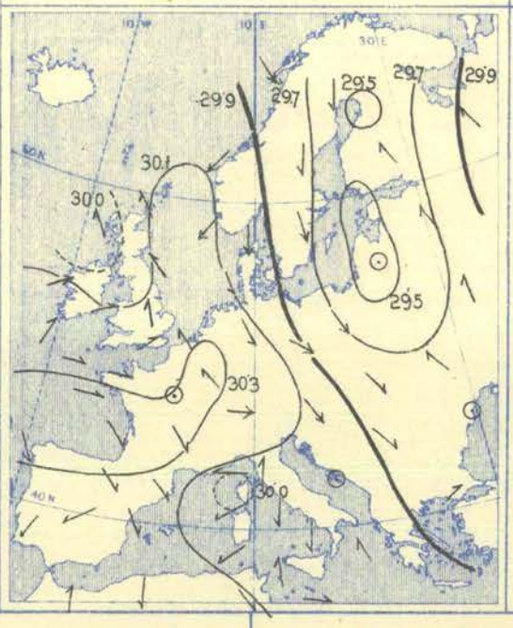
*Barometer* highest, 30·4 ins. and more to 30·3 ins. over south-western and western Europe, and exceeding 30·3 ins. over central Russia. Lowest, (1) 29·3 ins. and less near Haparanda; (2) below 29·5 ins. in a "V" shaped secondary over the southern half of Sweden; (3) below 30·2 ins. in a shallow secondary over our north-western districts. Rising over our Islands later, but various complications in the distribution appearing over our Islands and their neighbourhood. Depressions over northern Europe moving eastward.

## Friday, 31st March.

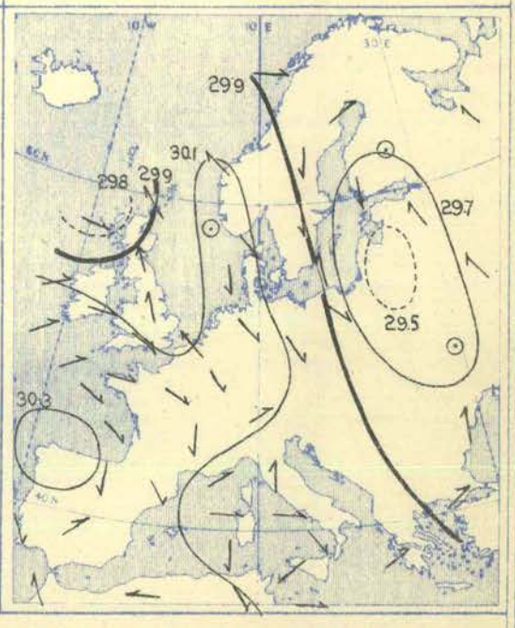
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning fair over south-western, and also over south-eastern Europe, dull in our Islands and the north of France, and foggy in many places; dull and rainy in the north-west and north, snow at Nairn, Aberdeen and Leith. Considerable rain in Scotland later, and smaller quantities in Ireland, the west and south of England, and in some parts of Germany, fog continuing in the south.

*Temperature* in morning highest, 66° at Barcelona, 55° at Biarritz, 53° in the south of Ireland and 50° at Scilly and Holyhead. Lowest, 19° at Archangel, 23° at Haparanda, 32° at Karlstadt, 33° at Breslau; 33° to 38° at the Scotch stations, rising later to between 60° and 61° in some places in England and the south-east of Ireland, and weather remaining mild in the south of England all night. Exceeding 70° over Spain and the south of France.

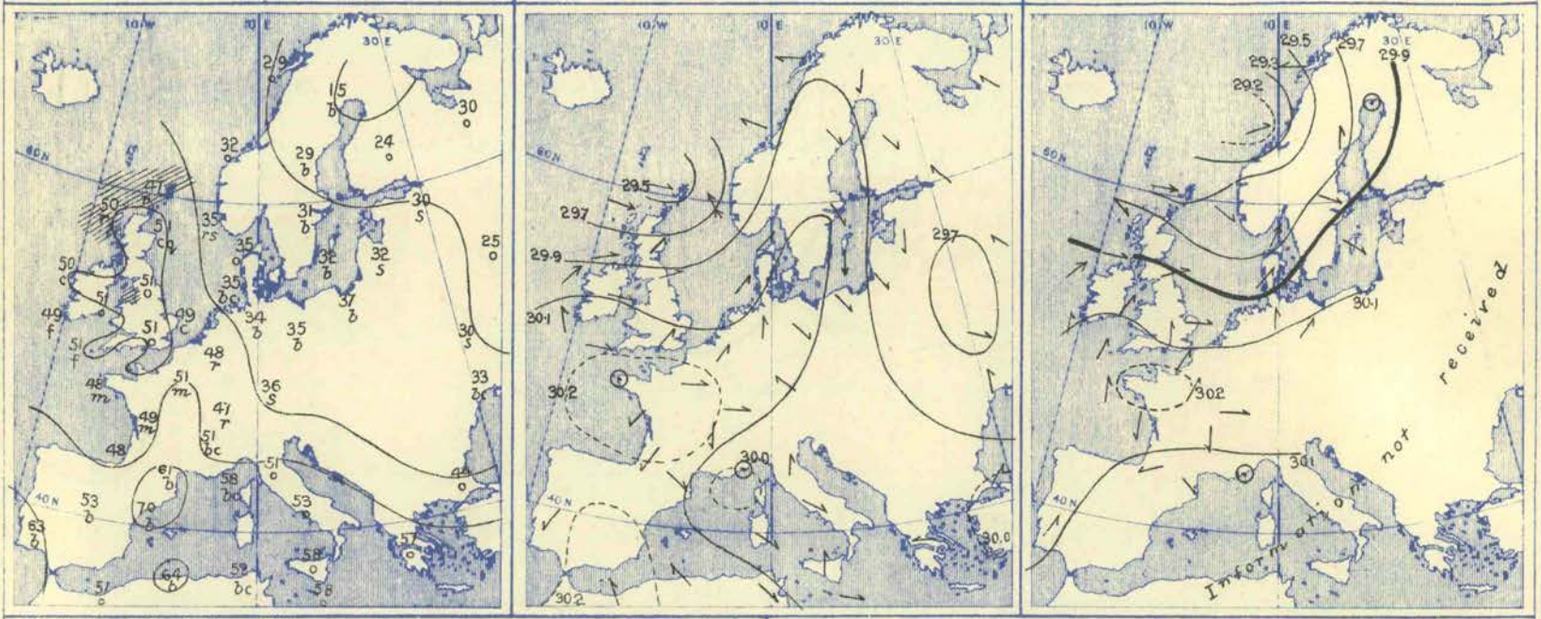
*Wind* (1) North-Westerly to North-Easterly over south-eastern and southern Europe, and the Mediterranean; (2) Westerly and light over the south of our Islands, but South-Easterly in the east and north. Northerly or North-Westerly over Scandinavia, Denmark, Germany and Austria, with a gale at Wisby.

*Barometer* highest, 30·3 ins. and more in an anticyclone of irregular form covering the western and central parts of France and Belgium. Lowest, 29·4 ins. and less to 29·5 ins. over the west of Russia, the Gulf of Finland, and the northern parts of Finland, to 30·0 ins. and less in a depression off our north-west coasts, and below 30·2 ins. in a subsidiary disturbance lying slightly to the westward of the Straits of Dover. Distribution very complex over north-eastern and north-western Europe. Falling later in the north and east of Scotland.

## Saturday, 1st April.

**Temperature and Weather.** — 8 a.m.

**Barometer and Wind.** — 8 a.m. | 6 p.m.




*Weather* in morning cloudy or dull over western Europe generally, with fog or mist over the English Channel and the Bay of Biscay; rain in the Shetlands and Hebrides, and at Spurn Head, and sleet at Skudesnaes. Fine in Sweden, and also over north Germany, the Spanish Peninsula, and the south of France. Dull in Italy; rain falling at Belfort, and snow at Munich, as well as at many of the Russian stations. Slight rain falling later in many parts of Ireland and England, and also in the north of Scotland; larger amounts reported in Scandinavia and Denmark.

*Temperature* risen over Great Britain—rapidly in the north; fallen in most other countries. Morning readings highest, 70° at Barcelona, 64° at Algiers, and 63° at Lisbon; above 55° at many of the Mediterranean and Spanish coast stations. Lowest, 15° at Haparanda, 18° at Uleaborg, and 24° at Kuopio; below the freezing point at most of the Russian and Scandinavian stations. Rising during day to between 60° and 65° in many parts of the United Kingdom, and to 66° in London and at Loughborough; reaching 75° at Biarritz, and 79° at Lisbon.

*Wind* light to fresh from the South-Westward or Westward over our Islands and the neighbouring parts of the Continent; South-Easterly or Easterly in the west of Norway, with a gale at Skudesnaes. Northerly or North-Westerly over Finland, Sweden, and the Baltic. Variable over Italy and the south of France; light from the Eastward or North-Eastward over the Spanish Peninsula and the Bay of Biscay. No important change occurring over western Europe during day.

*Barometer* highest, 30·2 ins. and upwards over France and the Bay of Biscay, and also over Spain and Morocco. Lowest, 29·5 ins. and less in a depression lying off the north of Scotland; 29·7 ins. and less in a shallow disturbance over the south-west of Russia. Scotch depression subsequently moving north-eastwards, and barometer rising on our own northern coasts.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m in Sweden an Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During the greater part of the week barometrical pressure was high over southern and eastern Europe, the winds in those regions being rather variable, and the weather mostly fair and dry. In the north-western countries the conditions were affected by several depressions which advanced from the Atlantic, the centres skirting our own extreme north-western and northern coasts, and afterwards passing across Scandinavia. The prevailing winds over north-western Europe were therefore South-West (South to West) and the weather very changeable, with frequent falls of rain in the west and north of our Islands, and snow in Scandinavia. The most important depression of the series was observed on the 28th and 29th, when the wind increased to a gale on all our own western coasts; in the rear of this disturbance cold Northerly and North-Westerly winds were experienced for a time in Scotland, with snow in places.

Towards the close of the week the high pressures over eastern Europe gave way, while an anticyclone spread temporarily over Great Britain from the southward, a partial improvement in the weather occurring, with, however, a good deal of fog on our western and southern coasts. Later on the anticyclone receded southwards and further depressions began to approach our northern coasts from the westward.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 74.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 20·2 | ? | 23 | ? | WATERGATE (Emsworth) | 17·3 | ? | 20 | ? |
| STRATHPEFFER SPA | 11·0 | −17·4 | 12 | −21 | BRIGHTON | 15·0 | −17·8 | 17 | −22 |
| EDINBURGH | 12·4 | −11·6 | 14 | −14 | BOGNOR | 31·3* | ? | 36* | ? |
| MORPETH | 14·8 | ? | 17 | ? | EASTBOURNE | 24·2 | −10·9 | 28 | −12 |
| NEWCASTLE-ON-TYNE | 12·3 | ? | 14 | ? | VENTNOR HOSPITAL | 15·4 | ? | 18 | ? |
| OSWALDKIRK (Yorkshire) | 11·3 | −17·2 | 13 | −20 | SOUTHPORT | 23·1 | ? | 26 | ? |
| HOLLESLEY BAY | 20·3 | ? | 23 | ? | COLWYN BAY | 32·9 | ? | 37 | ? |
| SHEFFIELD | 18·5 | ? | 21 | ? | ABERDOVEY | 24·2* | ? | 28* | ? |
| WORKSOP | 12·6 | −13·0 | 14 | −16 | TENBY | | | | |
| THURCASTON (Leicestershire) | 19·4 | − 5·6 | 22 | − 7 | NEWQUAY | 14·9 | −20·1 | 17 | −23 |
| PLUMSTEAD COMMON | 11·5 | ? | 13 | ? | TORQUAY | 33·0* | − 3·3 | 38* | − 4 |
| MARGATE | 24·7 | − 5·6 | 28 | − 7 | GUERNSEY | 37·2* | − 0·8 | 43* | − 3 |
| WESTBOURNE (Emsworth) | 28·4* | − 7·7 | 32* | −10 | | | | | |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS L^TD LITH. 63, CARTER LANE

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 14.] *Third Series.* WEEK ENDING SATURDAY, APRIL 8TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 80.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 58 | 29 | 49·1 | 38·2 | 43·4 | 2 above | 26 | +10 | 11 | −18 | 142 | + 27 | 477 | − 50 |
| | 1. SCOTLAND, EAST | 60 | 28 | 51·4 | 38·0 | 44·4 | 2 above | 34 | +12 | 11 | −17 | 183 | + 28 | 531 | − 28 |
| | 2. ENGLAND, N.E. | 60 | 32 | 53·6 | 41·4 | 47·2 | 4 above | 39 | +18 | 2 | −22 | 268 | +112 | 381 | −105 |
| | 3. ENGLAND, EAST | 62 | 36 | 55·4 | 43·1 | 49·0 | 5 above | 49 | +21 | 0 | −26 | 326 | +130 | 377 | −171 |
| | 4. MIDLAND COUNTIES | 64 | 33 | 54·8 | 42·6 | 48·4 | 5 above | 45 | +13 | 0 | −27 | 340 | +125 | 417 | −130 |
| | 5. ENGLAND SOUTH | 63 | 39 | 54·0 | 44·7 | 49·1 | 4 above | 50 | +21 | 0 | −22 | 382 | +154 | 266 | −173 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 56 | 34 | 50·8 | 41·4 | 45·9 | 3 above | 30 | + 8 | 2 | −20 | 214 | + 47 | 337 | − 66 |
| | 7. ENGLAND, N.W. | 58 | 36 | 52·0 | 43·5 | 47·5 | 3 above | 39 | +15 | 0 | −21 | 293 | +127 | 280 | −129 |
| | 8. ENGLAND, S.W. | 62 | 39 | 52·9 | 45·0 | 48·8 | 4 above | 48 | +18 | 0 | −15 | 395 | +139 | 217 | −114 |
| | 9. IRELAND, NORTH | 58 | 32 | 51·7 | 42·5 | 46·9 | 2 above | 34 | + 5 | 0 | −19 | 285 | + 62 | 286 | − 64 |
| | 10. IRELAND, SOUTH | 61 | 36 | 54·8 | 45·2 | 49·8 | 4 above | 55 | +23 | 0 | −14 | 424 | +111 | 221 | − 47 |
| | —CHANNEL ISLANDS | 57 | 44 | 55·3 | 47·1 | 51·0 | 3 above | 63 | +30 | 0 | − 5 | 584 | +252 | 80 | − 64 |

### Rainfall.

| | DISTRICTS. (See p. 80.) | For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 6 | 16 | 9 more | 66 | − 2 | 15·4 | + 0·9 |
| | 1. SCOTLAND, EAST | 6 | 11 | 6 more | 59 | + 7 | 9·5 | + 1·6 |
| | 2. ENGLAND, N.E. | 5 | 4 | 0 (average) | 53 | + 3 | 5·6 | − 0·4 |
| | 3. ENGLAND, EAST | 5 | 8 | 4 more | 51 | + 2 | 5·4 | − 0·3 |
| | 4. MIDLAND COUNTIES | 5 | 6 | 2 more | 49 | + 2 | 7·7 | + 1·0 |
| | 5. ENGLAND, SOUTH | 5 | 4 | 1 less | 43 | − 2 | 6·4 | − 0·9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 6 | 16 | 8 more | 63 | + 6 | 14·9 | + 0·8 |
| | 7. ENGLAND, N.W. | 7 | 10 | 5 more | 58 | + 6 | 10·0 | + 1·7 |
| | 8. ENGLAND, S.W. | 5 | 8 | 3 more | 54 | + 2 | 13·2 | + 2·8 |
| | 9. IRELAND, NORTH | 7 | 12 | 7 more | 69 | + 9 | 10·2 | + 0·5 |
| | 10. IRELAND, SOUTH | 6 | 8 | 2 more | 57 | + 2 | 13·3 | + 2·6 |
| | — CHANNEL ISLANDS | 5 | 4 | 2 less | 53 | − 5 | 8·6* | − 0·4 |

### Bright Sunshine.

| | DISTRICTS. (See p. 80.) | For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 25 | − 5 | 27 | − 6 | 228 | + 28 | 23 | + 3 |
| | 1. SCOTLAND, EAST | 28 | − 1 | 30 | − 2 | 269 | + 32 | 29 | + 4 |
| | 2. ENGLAND, N.E. | 29 | − 5 | 31 | − 6 | 268 | + 28 | 28 | + 3 |
| | 3. ENGLAND, EAST | 27 | − 9 | 30 | −10 | 381 | + 96 | 39 | +11 |
| | 4. MIDLAND COUNTIES | 24 | − 6 | 27 | − 7 | 313 | + 80 | 34 | + 9 |
| | 5. ENGLAND, SOUTH | 22 | −12 | 24 | −14 | 368 | + 89 | 37 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 20 | −11 | 22 | −13 | 241 | + 11 | 25 | + 1 |
| | 7. ENGLAND, N.W. | 18 | −12 | 19 | −14 | 301 | + 63 | 31 | + 7 |
| | 8. ENGLAND, S.W. | 23 | −15 | 25 | −17 | 346 | + 42 | 35 | + 4 |
| | 9. IRELAND, NORTH | 29 | + 1 | 32 | 0 | 295 | + 63 | 31 | + 7 |
| | 10. IRELAND, SOUTH | 31 | − 3 | 34 | − 4 | 317 | + 37 | 33 | + 4 |
| | — CHANNEL ISLANDS | 22 | −21 | 25 | −25 | 376 | + 52 | 40 | + 6 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was generally fine at the commencement of the week, but rainy, unsettled conditions soon spread over the Kingdom from the north-westward or westward, culminating on Saturday in severe squalls of cold rain or snow over the east and south-east of England accompanied in places by thunder and lightning.

*Temperature* exceeded the mean in all districts—by as much as 5° in England E. and the Midland Counties, and 4° in England S., S.W., and N.E., and Ireland S. The highest of the maxima were recorded either on the 3rd or 4th, and ranged from 64° in the Midland Counties and 63° in England S. to 57° in the Channel Islands, and to 56° in Scotland W. The lowest of the minima were registered on the 8th, when the thermometer fell to 28° in Scotland E., 29° in Scotland N., and 32° in England N.E. and Ireland N. Elsewhere the minima ranged from 33° in the Midland Counties to 39° in England S. and S.W., and to 44° in the Channel Islands.

*Rainfall* exceeded the mean in nearly all districts, but only equalled it in England N.E., and was rather less than the normal in England S. and the Channel Islands.

*Bright Sunshine* was less than the mean in all districts except Ireland N. The percentage of the possible duration ranged from 34 in Ireland S., and 31 to 30 in the eastern parts of Great Britain to 25 in the Channel Islands and England S.W., 24 in England S., 22 in Scotland W., and 19 in England N.W.

*Barometer and Wind.*—At the commencement of the week the distribution of barometric pressure was anticyclonic over all the southern parts of the Kingdom, and cyclonic in the north, and the wind light from the Southward. By the 3rd, however, a depression had appeared over our north-west coasts, and the wind had shifted to the West and South-West. From this time onward depressions continued to reach our Islands or their neighbourhood from the Atlantic, that travelling eastwards to Norway on Tuesday causing Westerly gales at nearly all our northern stations, and another whose centre passed east-south-eastward immediately over the north of England on Friday produced South-Westerly and North-Westerly gales over nearly the whole of Ireland and England. By the end of the week this disturbance was moving away over Denmark and north Germany, but local irregularities in pressure caused exceptionally strong squalls of sleet or snow in London, and over the south-east of England generally.

* This value has been altered owing to the receipt of further information for a preceding week.

227 | 90 Wy. & S., Ltd
613 | 70 4 | 99.

# II.—DATA from which the SUMMARY on page 79 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 50 | 34 | 47·0 | 37·3 | 41·9 | + 1·8 | 14 | 18 | 6 | 0·73 | + 0·23 | * | * | * | * |
| | Stornoway | 53 | 32 | 49·4 | 38·3 | 43·6 | + 2·0 | 27 | 10 | 7 | 1·10 | + 0·42 | 32·7 | + 3·5 | 35 | + 2 |
| | Wick | 58 | 35 | 51·1 | 38·9 | 44·7 | + 3·1 | 32 | 9 | 7 | 0·73 | + 0·35 | * | * | * | * |
| | Lairg Ⓢ | 57 | 32 | 50·0 | 36·5 | 42·9 | + 2·1 | 29 | 15 | 5 | 1·47 | + 0·87 | * | * | * | * |
| | Glencarron Ⓢ | 52 | 31 | 47·6 | 37·5 | 42·3 | + 1·4 | 21 | 13 | 7 | 2·84 | + 1·76 | * | * | * | * |
| | Fort Augustus Ⓢ | 55 | 29 | 49·6 | 37·8 | 43·4 | + 1·5 | 27 | 12 | 6 | 1·78 | + 1·32 | 19·9 | - 2·8 | 21 | - 2 |
| | Fort William Ⓢ | 52 | 34 | 49·0 | 40·8 | 44·7 | + 2·0 | 24 | 3 | 6 | 2·21 | + 1·37 | 14·0 | -13·0 | 15 | -15 |
| 1. SCOTLAND E. | Nairn | 60 | 32 | 52·0 | 38·1 | 44·7 | + 2·4 | 35 | 11 | 6 | 1·31 | + 1·03 | * | * | * | * |
| | Aberdeen | 60 | 35 | 52·1 | 39·4 | 45·5 | + 3·0 | 35 | 7 | 6 | 1·34 | + 0·85 | 33·5 | + 1·5 | 36 | 0 |
| | Braemar Ⓢ | 54 | 28 | 47·1 | 35·0 | 40·8 | + 1·4 | 14 | 26 | 6 | 1·29 | + 0·81 | 25·7† | - 3·0† | 28† | - 4† |
| | Ochtertyre Ⓢ | 58 | 30 | 52·6 | 36·9 | 44·4 | + 1·9 | 38 | 14 | 6 | 0·91 | + 0·29 | * | * | * | * |
| | Leith | 57 | 31 | 53·1 | 40·3 | 46·4 | + 2·8 | 38 | 5 | 6 | 0·67 | + 0·29 | * | * | * | * |
| | Marchmont Ⓢ | 56 | 32 | 51·3 | 38·3 | 44·5 | + 3·0 | 33 | 10 | 6 | 0·83 | + 0·25 | 28·0 | + 0·4 | 30 | 0 |
| 2. ENGLAND, N.E. | Alnwick Castle | 58 | 36 | 52·6 | 40·7 | 46·4 | + 4·9 | 36 | 4 | 3 | 0·23 | - 0·29 | * | * | * | * |
| | Durham | 59 | 35 | 53·7 | 40·9 | 47·0 | + 4·4 | 40 | 3 | 3 | 0·41 | - 0·09 | 26·9 | - 1·0 | 29 | - 2 |
| | Shields | 60 | 35 | 54·1 | 41·3 | 47·4 | + 4·8 | 41 | 2 | 6 | 0·39 | - 0·03 | * | * | * | * |
| | Scarborough Ⓜ | 59 | 32 | 54·7 | ? 40·0 | ? 47·1 | ? + 3·5 | ? 44 | ? 6 | 4 | 0·42 | - 0·05 | 30·8 | ? | 33 | ? |
| | York | 59 | 37 | 54·7 | 42·4 | 48·3 | + 4·5 | 44 | 0 | 6 | 0·57 | + 0·14 | ? | ? | ? | ? |
| | Spurn Head | 55 | 40 | 51·7 | 43·0 | 47·1 | + 4·3 | 36 | 0 | 5 | 0·51 | + 0·17 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 60 | 37 | 55·7 | 41·9 | 48·5 | + 3·8 | 46 | 0 | 5 | 0·89 | + 0·49 | 21·4 | - 9·1 | 23 | -12 |
| | Yarmouth | 57 | 38 | 53·7 | 43·3 | 48·3 | + 5·3 | 44 | 0 | 6 | 1·08 | + 0·65 | * | * | * | * |
| | Geldeston | 62 | 36 | 56·4 | 43·1 | 49·4 | + 5·4 | 52 | 0 | 5 | 0·82 | + 0·42 | 26·6 | - 8·2 | 29 | -10 |
| | Cambridge | 62 | 39 | 56·4 | 43·6 | 49·7 | + 5·0 | 54 | 0 | 5 | 1·08 | + 0·71 | 22·0 | -11·4 | 24 | -13 |
| | Felixstowe | 59 | 39 | 55·3 | 43·1 | 48·9 | + 5·2 | 48 | 0 | 4 | 0·24 | ? | 37·3 | ? | 41 | ? |
| | Rothamsted | 59 | 39 | 55·1 | 43·7 | 49·1 | + 5·3 | 50 | 0 | 5 | 0·47 | + 0·02 | 27·0 | - 5·0 | 30 | - 6 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 60 | 37 | 55·4 | 43·3 | 49·1 | + 4·9 | 50 | 0 | 4 | 0·56 | + 0·14 | * | * | * | * |
| | Loughborough | 64 | 36 | 56·3 | 42·0 | 48·8 | + 4·1 | 48 | 0 | 7 | 0·60 | + 0·17 | * | * | * | * |
| | Stamford (Duddington) | 61 | 37 | 56 0 | 42·7 | 49·0 | + 4·5 | 49 | 0 | 3 | 0·45 | + 0·03 | * | * | * | * |
| | Cheadle Ⓜ | 60 | 33 | 51·9 | 41·0 | 46·2 | + 3·1 | 34 | 3 | 5 | 1·19 | + 0·67 | * | * | * | * |
| | Shirley (near Solihull) | 59 | 37 | 54·1 | 42·1 | 47·8 | + 4·2 | 41 | 0 | 6 | 0·50 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 59 | 36 | 54·6 | 42·4 | 48·3 | + 5·4 | 44 | 0 | 4 | 0·71 | + 0·26 | 24·7 | - 6·2 | 27 | - 7 |
| | Hereford Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 62 | 38 | 54·3 | 42·3 | 48·0 | + 4·5 | 42 | 0 | 5 | 0·46 | - 0·04 | 28·4 | - 3·0 | 31 | - 4 |
| | Oxford | 61 | 40 | 55·7 | 44·6 | 49·9 | + 5·1 | 55 | 0 | 4 | 0·36 | - 0·06 | 24·2 | - 6·9 | 27 | - 9 |
| 5. ENGLAND, S. | London | 63 | 41 | 57·1 | 45·3 | 50·9 | + 5·2 | 62 | 0 | 5 | 0·31 | - 0·09 | 23·8† | - 2·9† | 26† | - 2† |
| | Cranley Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Dungeness | 56 | 40 | 53·1 | 44·9 | 48·8 | + 4·2 | 48 | 0 | 4 | 0·30 | - 0·18 | * | * | * | * |
| | Hastings (St. Leonards) | 57 | 40 | 53·1 | 43·9 | 48·2 | + 3·1 | 43 | 0 | 5 | 0·50 | - 0·02 | 25·0 | -12·0 | 27 | -14 |
| | Southampton | 60 | 42 | 56·0 | 45·4 | 50·5 | + 4·2 | 60 | 0 | 5 | 0·42 | - 0·06 | 19·7 | -16·1 | 22 | -18 |
| | Hurst Castle | 57 | 43 | 53·3 | 46·1 | 49·5 | + 4·2 | 53 | 0 | 5 | 0·26 | - 0·21 | * | * | * | * |
| | Shaftesbury Ⓜ | 55 | 39 | 51·4 | 42·6 | 46·8 | + 3·1 | 34 | 0 | 4 | 0·42 | - 0·10 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 54 | 34 | 50·7 | 40·4 | 45·3 | + 1·2 | 30 | 4 | 7 | 1·16 | + 0·12 | * | * | * | * |
| | Glasgow | 53 | 34 | 49·4 | 40·9 | 45·0 | + 2·2 | 26 | 3 | 6 | 1·57 | + 1·02 | 19·3 | - 6·2 | 21 | - 6 |
| | Glenlee Ⓢ | 56 | 36 | 51·8 | 41·1 | 46·2 | + 3·8 | 33 | 3 | 6 | 1·87 | + 1·06 | * | * | * | * |
| | Douglas (Isle of Man) | 56 | 37 | 51·2 | 43·2 | 47·0 | + 3·2 | 35 | 0 | 6 | 1·58 | + 0·93 | 21·2 | -15·4 | 23 | -19 |
| 7. ENGLAND, N.W. | Stonyhurst | 54 | 36 | 50·8 | 42·5 | 46·5 | + 3·0 | 32 | 0 | 7 | 1·69 | + 1·01 | 20·3 | - 8·7 | 22 | -10 |
| | Blackpool Ⓜ | 54 | 37 | 51·3 | 42·8 | 46·7 | + 2·7 | 33 | 0 | 7 | 1·06 | + 0·56 | 9·0 | -19·0 | 10 | -21 |
| | Manchester (Prestwich) | 56 | 37 | 52·9 | 42·8 | 47·6 | + 3·5 | 39 | 0 | 6 | 1·11 | + 0·59 | 22·5 | ? | 24 | ? |
| | Liverpool Obsy. (Bidston) | 58 | 37 | 53·1 | 44·1 | 48·4 | + 3·7 | 45 | 0 | 5 | 0·41 | - 0·04 | 14·0 | ? | 15 | ? |
| | Llandudno Ⓜ | 56 | 38 | 52·7 | 44·4 | 48·4 | + 2·6 | 45 | 0 | 7 | 0·79 | + 0·31 | 21·6 | - 7·4 | 23 | - 9 |
| | Holyhead | 55 | 39 | 51·3 | 44·1 | 47·5 | + 2·3 | 39 | 0 | 7 | 1·06 | + 0·58 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 59 | 39 | 53·3 | 43·3 | 48·1 | + 3·4 | 43 | 0 | 7 | 2·10 | + 1·40 | * | * | * | * |
| | Pembroke | 51 | 40 | 49·9 | 45·7 | 47·7 | + 2·3 | 40 | 0 | 4 | 0·41 | - 0·09 | 22·1 | -15·3 | 24 | -18 |
| | Clifton | 57 | 41 | 54·0 | 45·2 | 49·4 | + 4·5 | 52 | 0 | 4 | 1·16 | + 0·61 | * | * | * | * |
| | Arlington (N. Devon) | 54 | 39 | 51·0 | 43·3 | 47·0 | + 4·5 | 35 | 0 | 6 | 1·18 | + 0·45 | * | * | * | * |
| | Cullompton Ⓜ | 62 | 41 | 56·0 | 45·5 | 50·5 | + 4·3 | 60 | 0 | 6 | 0·56 | + 0·06 | 22·7 | -10·7 | 25 | -11 |
| | Falmouth | 59 | 43 | 53·8 | 46·3 | 49·9 | + 3·9 | 55 | 0 | 6 | 0·66 | + 0·02 | 26·4 | -11·9 | 29 | -14 |
| | Plymouth | 59 | 43 | 52·9 | 45·9 | 49·2 | + 2·1 | 50 | 0 | 4 | 0·34 | - 0·23 | 22·8 | -13·8 | 25 | -16 |
| | Prawle Point | 56 | 42 | 52·4 | 44·6 | 48·3 | + 2·7 | 44 | 0 | 5 | 0·31 | - 0·16 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 51 | 32 | 48·9 | 42·9 | 45·8 | + 1·3 | 27 | 0 | 7 | 0·92 | ? | * | * | * | * |
| | Londonderry | 57 | 34 | 51·9 | 41·0 | 46·2 | + 1·1 | 34 | 3 | 7 | 1·29 | + 0·68 | * | * | * | * |
| | Edenfel (Omagh) | 55 | 34 | 50·9 | 42·3 | 46·4 | + 3·5 | 31 | 0 | 7 | 1·53 | + 0·98 | * | * | * | * |
| | Belmullet | 53 | 37 | 51·1 | 43·3 | 47·0 | + 1·2 | 35 | 0 | 7 | 1·60 | + 0·89 | * | * | * | * |
| | Markree Castle | 56 | 36 | 53·0 | 42·4 | 47·5 | + 2·8 | 39 | 0 | 7 | 1·52 | + 0·97 | 29·5 | + 0·5 | 32 | 0 |
| | Armagh | 58 | 33 | 53·5 | 41·6 | 47·3 | + 3·6 | 39 | 1 | 7 | 0·86 | + 0·39 | 29·2 | + 1·2 | 32 | + 1 |
| | Donaghadee | 57 | 37 | 52·4 | 44·1 | 48·1 | + 3·3 | 43 | 0 | 7 | 0·77 | + 0 25 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 61 | 38 | 56·3 | 44·6 | 50·2 | + 4·3 | 57 | 0 | 4 | 0·40 | - 0·08 | 35·6 | + 1·8 | 39 | + 1 |
| | Parsonstown | 57 | 37 | 54·7 | 43·9 | 49·0 | + 4·3 | 49 | 0 | 7 | 0·93 | + 0·40 | 28·3 | - 3·2 | 31 | - 5 |
| | Kilkenny | 59 | 36 | 54·9 | 43·6 | 49·0 | + 3·4 | 49 | 0 | 6 | 0·53 | 0·00 | * | * | * | * |
| | Roche's Point | 59 | 43 | 54·0 | 46·1 | 49·9 | + 3·1 | 55 | 0 | 3 | 0·62 | - 0·09 | * | * | * | * |
| | Valencia | 57 | 40 | 54·4 | 46·3 | 50·2 | + 2·4 | 57 | 0 | 7 | 1·16 | + 0·36 | 29·5 | - 6·5 | 32 | - 8 |
| | Killarney | 60 | 37 | 55·6 | 45·5 | 50·3 | + 4·1 | 58 | 0 | 6 | 1·14 | ? | * | * | * | * |
| | Foynes | 60 | 40 | 53·7 | 46·1 | 49·7 | + 4·7 | 54 | 0 | 6 | 0·82 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 57 | 44 | 55·9 | 47·0 | 51·2 | + 3·5 | 64 | 0 | 4 | 0·26 | - 0·27 | 27·1 | ? | 30 | ? |
| | Jersey | 57 | 44 | 54·6 | 47·1 | 50·7 | + 3·1 | 61 | 0 | 6 | 0·50 | - 0·04 | 20·1 | -21·5 | 22 | -25 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

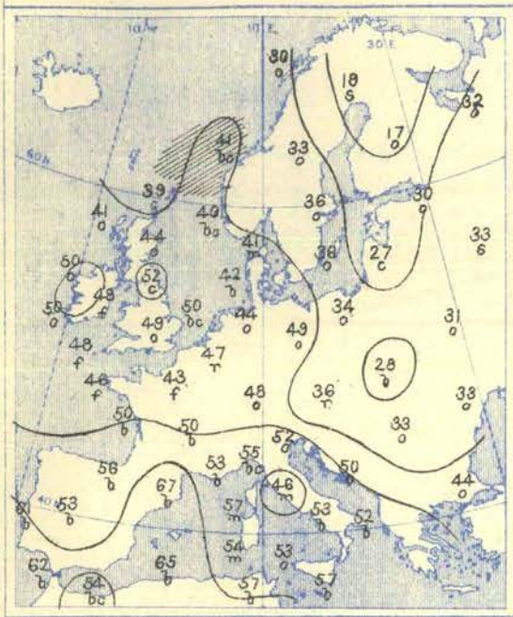
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake. The reports from Ardrossan have now ceased.

## Sunday, 2nd April.

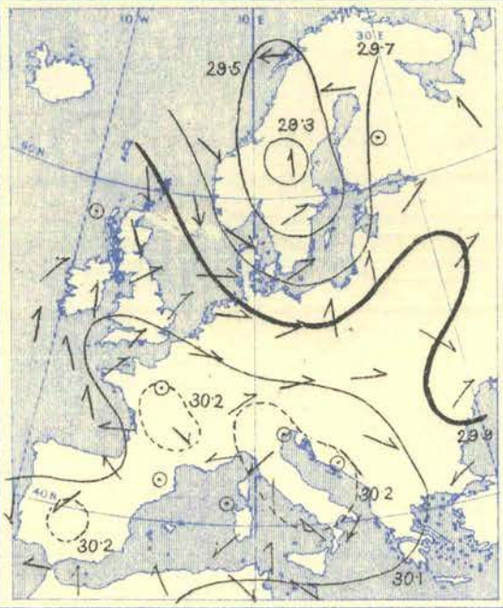
### Temperature and Weather.

#### 8 a.m.

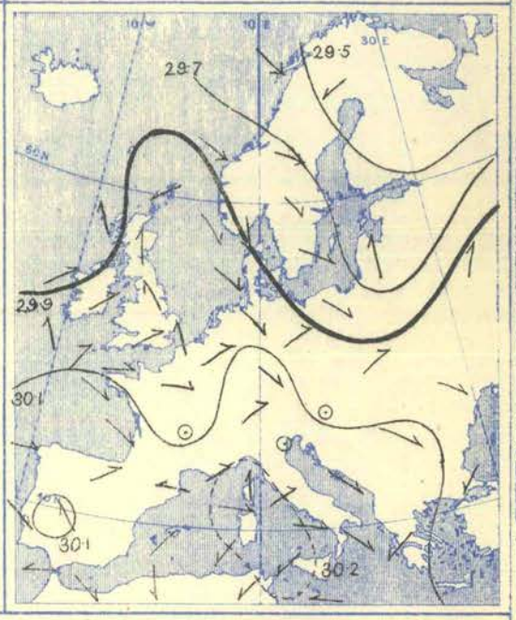


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fine at several of our own northern and eastern stations, and also over the western and southern parts of the Continent generally. Cloudy or dull elsewhere, with fog or mist on our western and southern coasts, as well as in the northern and central parts of France; rain falling at Brussels and Vienna, and snow at Haparanda and Moscow. A little rain falling later in all the more western and northern parts of our Islands, and also at several of the German and Austrian stations.

*Temperature* risen in the northern and central countries, changed very irregularly elsewhere. Morning readings highest, 67° at Barcelona, 65° at Algiers, 62° at San Fernando, and 61° at Lisbon; above 55° at many of the Mediterranean and Spanish coast stations. Lowest, 17° at Kuopio, 19° at Haparanda, 23° at Uleaborg, and 25° at Helsingfors. Rising during day to 55° and upwards at most of the English and Irish stations, and to 59° in London. Exceeding 60° in Italy, and exceeding 70° in many parts of France and Spain, the highest readings reported being 82° at Bordeaux, and 81° at Madrid.

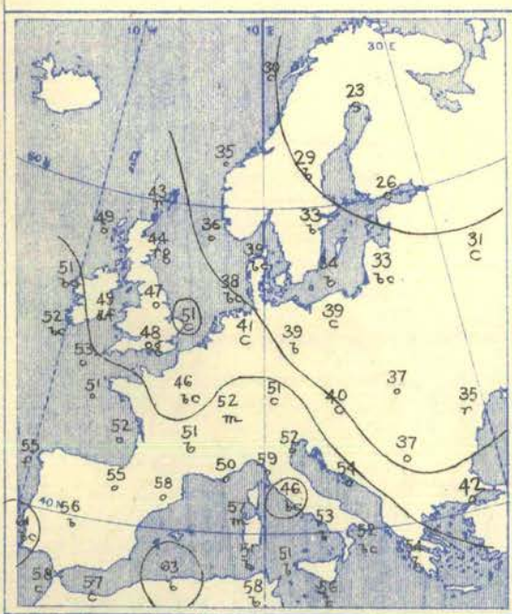
*Wind* light from the Southward (South-East to South-West) over the greater part of England and Ireland, but calm or variable in Scotland. Moderate to strong from the North-Westward in Norway and Denmark; light from the Westward or South-Westward in Germany and Austria; Southerly over the northern and central parts of Russia; Easterly in the north of Scandinavia. Light from East or South-East in the west and south of France, and from north-east in Spain; variable in Italy. Subsequently shifting to the Westward in France; Easterly or South-Easterly breezes springing up in Scotland.

*Barometer* highest, 30·1 ins. to 30·2 ins. and upwards in an anticyclone covering nearly the whole of central and southern Europe, and extending northwards over the southern parts of England. Lowest, 29·3 ins. and less in a well-marked depression over central Sweden. Depression subsequently moving away to the North-Eastward, but new disturbance approaching the west of Scotland.

## Monday, 3rd April.

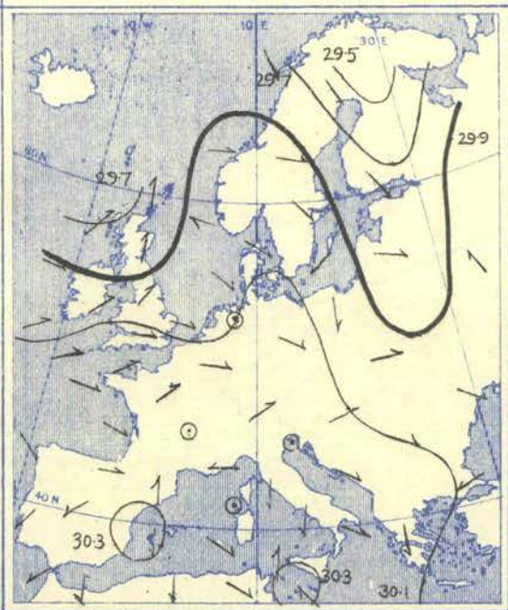
### Temperature and Weather.

#### 8 a.m.

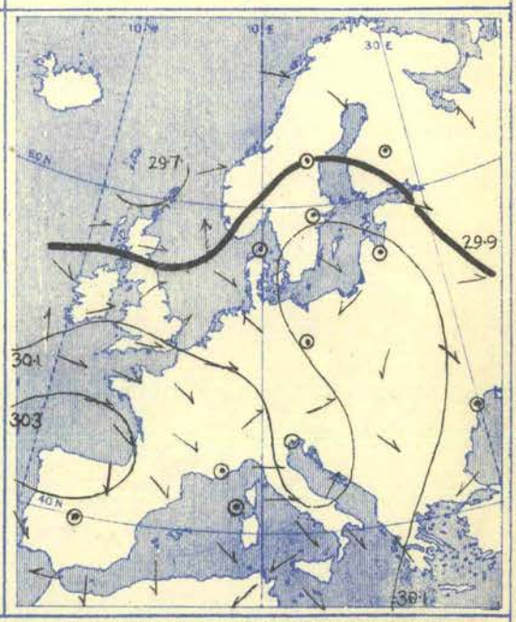


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fine in Ireland and also over a considerable portion of the Continent. Dull over Great Britain, with fog in the St. George's Channel, mist in the English Channel, and rain in many parts of Scotland. Cloudy or dull in the west and south of France, northern Italy, Austria and the south of Russia, with rain at Odessa; snow falling at Uleaborg. Slight rain falling later in nearly all parts of the United Kingdom, as well as at some of the neighbouring Continental stations. Thunderstorms occurring in south Germany.

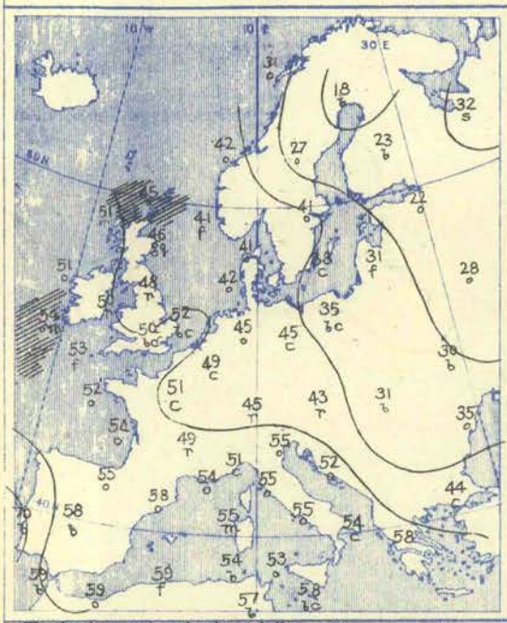
*Temperature* risen a little in the western and central countries, but fallen elsewhere. Morning readings highest, 63° at Algiers, 61° at Lisbon and 59° at Leghorn; above 55° at several of the Mediterranean and Spanish coast stations. Lowest, 23° at Haparanda and Uleaborg, 26° at Hangö and Helsingfors, and 29° at Hernösand; below 40° over northern and central Europe generally. Rising during day to 60° and upwards in several parts of Great Britain and to 64° at Loughborough; exceeding 70° over the Spanish Peninsula and the south of France, and reaching 76° at Gap, 82° at Oporto and 83° at Madrid.

*Wind* light to moderate from the Southward or South-Westward over the northern parts of our Islands, but from the Westward on our southern and the French coasts. Northerly or North-Westerly over Finland, Scandinavia, the Baltic and north Germany; Westerly or South-Westerly over south Germany and Austria—variable in Italy; Easterly or North-Easterly over the Spanish Peninsula. Subsequently veering to the Westward on our own northern coasts; Westerly or North-Westerly breezes setting in also over Italy.

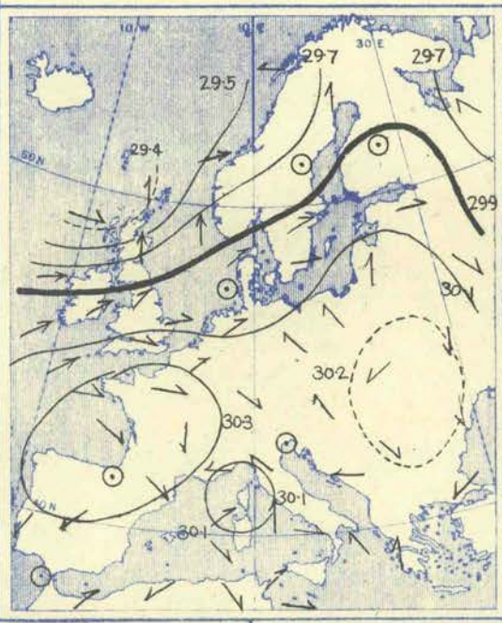
*Barometer* highest, 30·2 ins. to 30·3 ins. and upwards in an anticyclone lying over the Spanish Peninsula, France, Italy and the western parts of the Mediterranean. Lowest, 29·6 ins and less over Lapland; 29·8 ins. and less in a shallow depression over the north and west of Scotland. Latter disturbance subsequently moving away to the north-eastward, but new depression beginning to approach our western coasts in evening.

## Tuesday, 4th April.

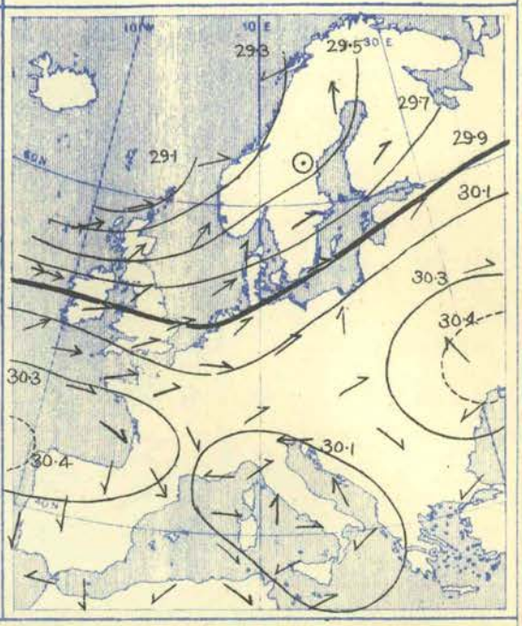
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over Europe as a whole, with fog or mist on several parts of our own western and southern coasts; rain falling in the northern parts of England and Wales, as well as at Stornoway and Malin Head, and at Lyons, Munich, and Vienna; snow reported at Archangel. Fine in Spain, and also over Lapland and the southern parts of the Baltic. Rain falling later over nearly the whole of western Europe, but amount mostly small.

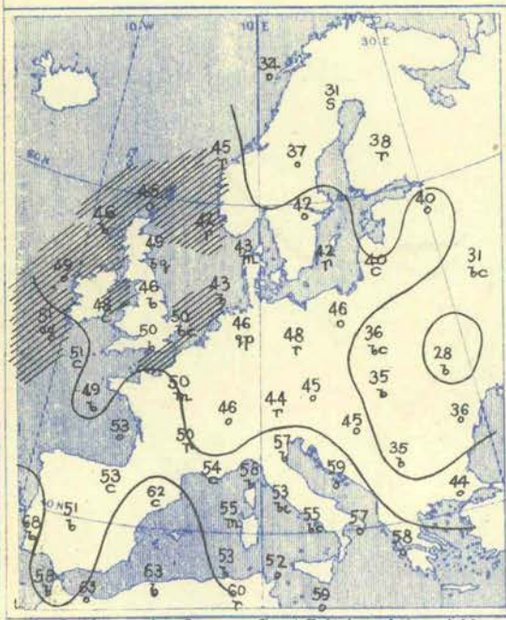
*Temperature* risen a little in the western countries, but fallen elsewhere. Morning readings highest, 70° at Lisbon, and 59° at San Fernando, Oran, and Algiers; above 55° at many of the Spanish and Mediterranean stations, and very little below it in several parts of Ireland and Scotland. Lowest, 18° at Haparanda and Uleaborg, 22° at St. Petersburg, and 23° at Kuopio; below the freezing point over the northern parts of Russia and Scandinavia generally. Rising during day to between 55° and 60° in most parts of the United Kingdom; exceeding 65° in Italy and the south of France, and exceeding 70° over the Spanish Peninsula, the highest reading of all being 82° at Madrid.

*Wind* Southerly or South-Westerly over north-western and northern Europe generally, and fresh to strong in force on many parts of our own western and northern coasts, as well as in the west of Norway. Light from the Westward or North-Westward in France, and from the North-Eastward over the Spanish Peninsula. South-Easterly in Italy, variable in Austria, Northerly or North-Westerly over the central and southern parts of Russia. Subsequently increasing to a gale from the South-Westward or Westward on many parts of our own northern coasts.

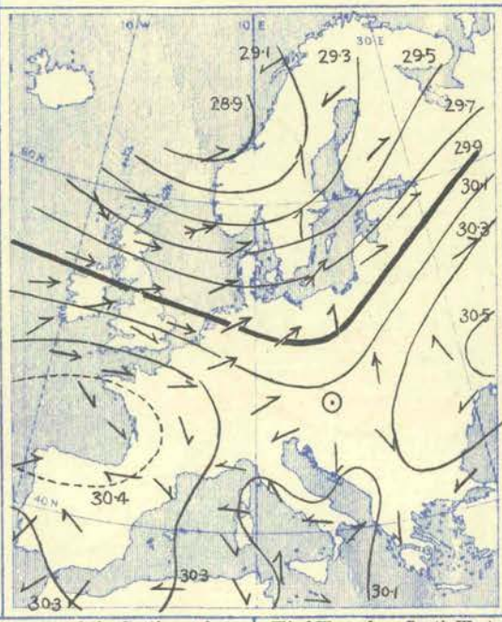
*Barometer* highest, 30·3 ins. and upwards over the Bay of Biscay and the greater part of France; 30·1 ins. and upwards in an anticyclone embracing all the more central and southern parts of the Continent, and extending over the south of England. Lowest, 29·4 ins. and less in a depression lying to the northward of our Islands. Depression subsequently moving eastwards towards the Norwegian coasts, and proving both large and deep; barometer falling briskly on our own northern coasts.

## Wednesday, 5th April.

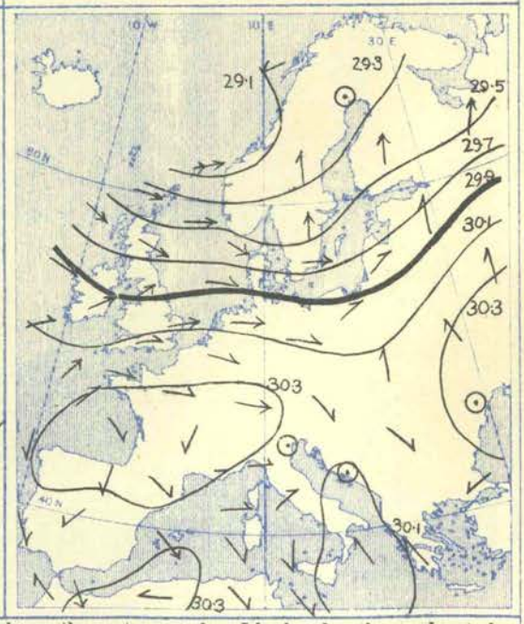
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over Great Britain and the neighbouring parts of the Continent, but dull in Ireland, with rain at Malin Head. Cloudy or dull over the Continent as a whole, with rain in many parts of central France, Germany and the south of Sweden, and snow at Haparanda and Uleaborg. Fine over the Spanish Peninsula, and also in the central and southern parts of Russia. Rainy weather extending later from the westward over nearly the whole of our Islands, but amount of rain mostly slight.

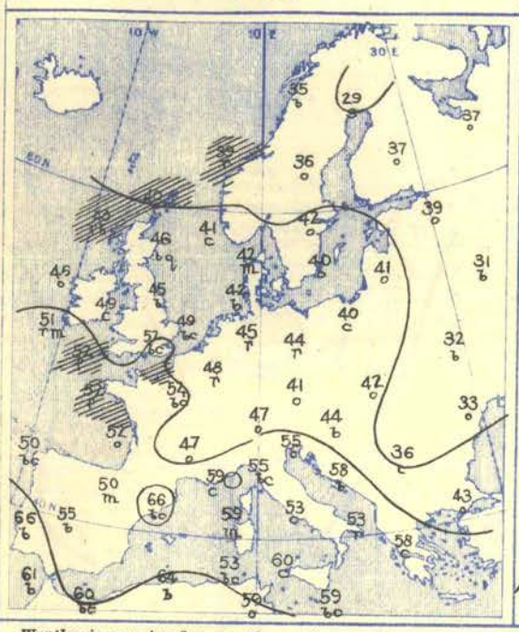
*Temperature* fallen over our Islands, the west of France and the Spanish Peninsula; risen over northern Europe; changed irregularly elsewhere. Morning readings highest, 68° at Lisbon, 63° at Algiers and Oran, and 62° at Barcelona; above 55° at many of the Mediterranean and Spanish coast stations. Lowest, 28° at Kiev, 30° at Kharkov, and 31° at Moscow and Haparanda. Rising during day to between 55° and 60° in many parts of our Islands, and to 61° at Loughborough and Cambridge; exceeding 65° in Italy, and exceeding 70° over the Spanish Peninsula and the south of France, the highest reading of all being 82° at Lisbon.

*Wind* Westerly or South-Westerly over the greater part of our Islands and northern and central Europe; blowing a gale from the North-Westward in the north of Scotland, and from the South-Westward at some stations in the south of Scandinavia; Easterly or North-Easterly in the north of Scandinavia. Light from the North-Westward over the greater part of France, and from between North and East over the Spanish Peninsula and northern Italy; Southerly or South-Westerly over southern Italy. Subsequently backing to the Southward on our own western coasts, but veering to the Westward again in evening.

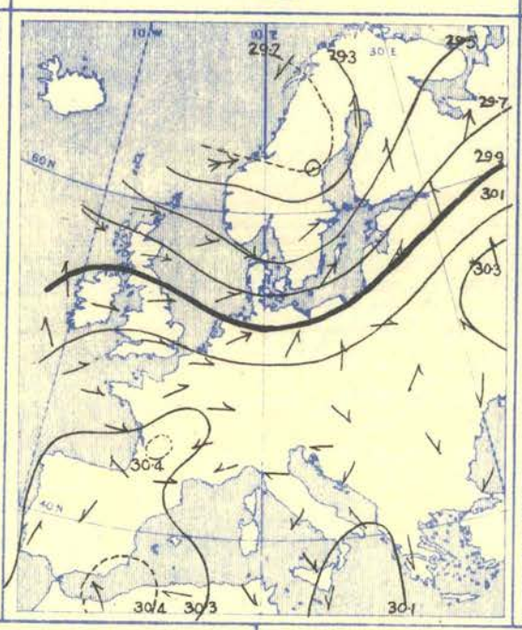
*Barometer* highest, 30·3 ins. to 30·5 ins. and upwards in an anticyclone over the southern parts of Russia; 30·3 ins. to 30·4 ins. and upwards in another system over the Spanish Peninsula, France and the south-west of England. Lowest, 28·9 ins. and less in a well-marked depression off the west of Norway. Depression subsequently moving northwards; small secondary disturbance passing eastwards across Ireland and England.

## Thursday, 6th April.

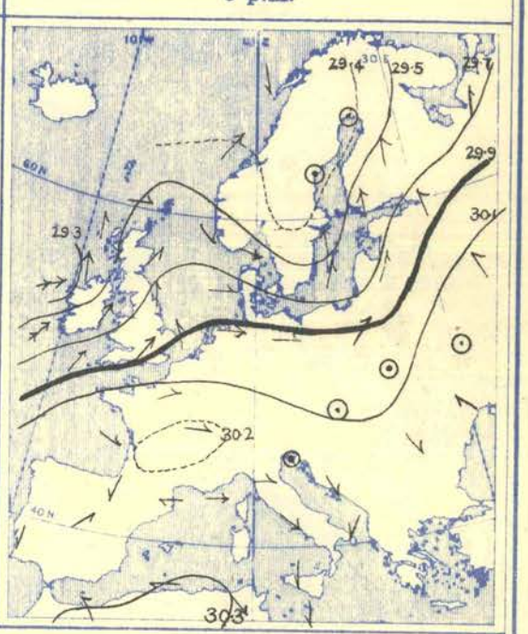
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the northern, eastern, and central parts of our Islands generally, but dull and showery in the Shetlands and Hebrides; rainy in the south of Ireland; foggy at the mouth of the Channel. Cloudy or dull over the northern and central parts of the Continent, with rain in many places, and snow at Haparanda; fine in most of the southern countries, but rainy at Brindisi. Rain spreading later from the westward over the whole of north-western Europe; solar halo seen at Stornoway.

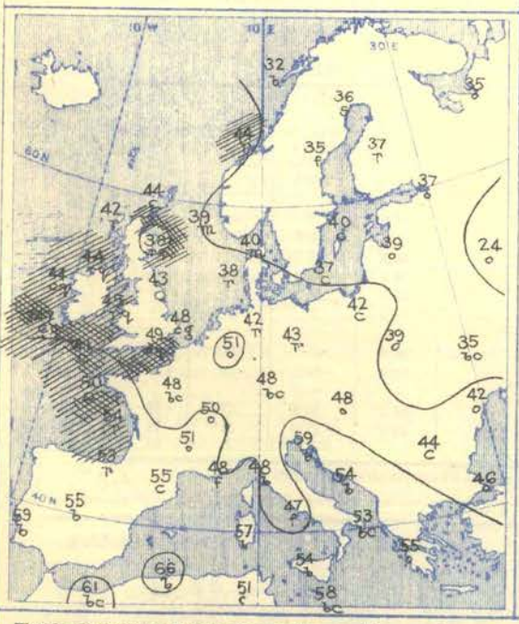
*Temperature* fallen in most places. Morning readings highest, 66° at Barcelona and Oporto, 64° at Algiers, and 61° at Toulon and San Fernando; above 55° in most parts of southern Europe. Lowest, 29° at Haparanda, 31° at Moscow and Kharkov, and 32° at Kiev and Nicolaieff; below 40° over nearly the whole of Russia and Scandinavia. Rising during day to 55° and upwards in many parts of Great Britain, and to 63° in London; exceeding 65° in the west of France, and exceeding 70° in many parts of southern Europe, the highest reading of all being 82° at Madrid.

*Wind* Westerly or South-Westerly over Great Britain and the northern and central parts of the Continent generally, and strong in force at several of the most northern stations, with a gale at Christiansund; Southerly or South-Easterly in the west and south of Ireland. Light from the Eastward or North-Eastward over the Spanish Peninsula, Italy, and the south of Russia; variable in the extreme south of France; North-Westerly in Austria. Subsequently increasing to a gale from the South-Westward in the west and south of our Islands.

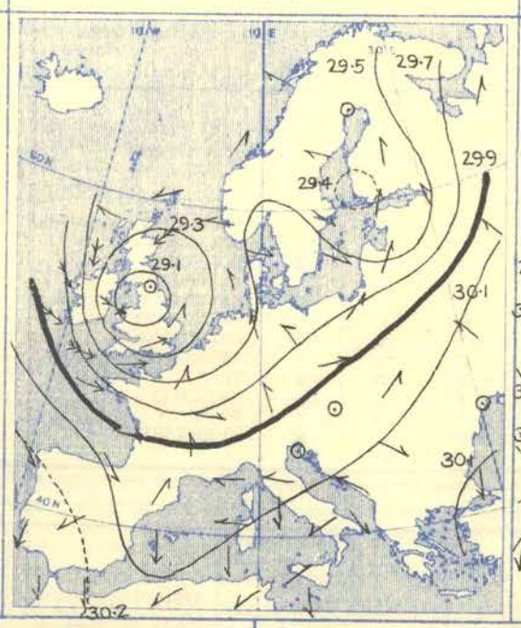
*Barometer* highest, 30·3 ins. and upwards over the Spanish Peninsula, Morocco, and the south-western parts of France, and also in another area over the south of Russia. Lowest, 29·2 ins. and less in a depression over the northern parts of Scandinavia. New and deep depression advancing later towards our extreme north-west coasts, and barometer falling rapidly in Ireland.

## Friday, 7th April.

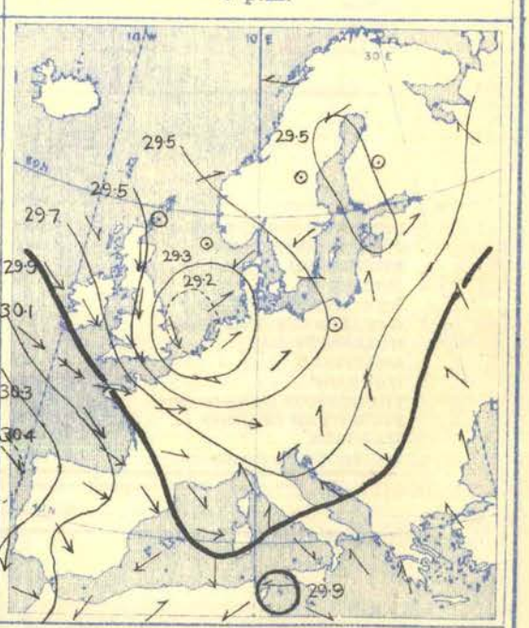
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy over western, northern, and central Europe generally, with rain in many parts of the United Kingdom, as well as in the south-west of France, Denmark, north Germany, and at Kuopio and Christiansund; snow falling at Haparanda. Fine over the Spanish Peninsula, Italy, and the Mediterranean, as well as in the south of Sweden. Rain falling during day in nearly all parts of Europe; thunder heard at Loughborough.

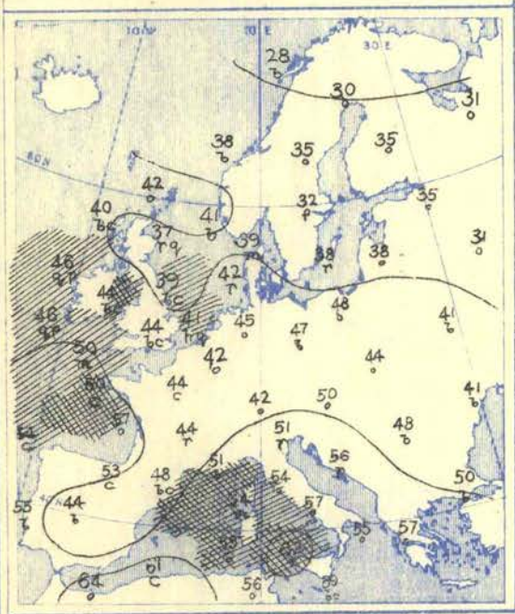
*Temperature* fallen in most of the north-western and northern countries; changed rather irregularly elsewhere. Morning readings highest, 66° at Algiers, 61° at Nemours, and 59° at Trieste, Barcelona, and San Fernando; above 55° in many parts of southern Europe. Lowest, 24° at Moscow, 32° at Bodö, 33° at Hango, 34° at Karlstadt; below 40° in the east of Scotland. Daily maxima below 55° in nearly all parts of the United Kingdom, and below 50° at most of our northern and north-western stations. Thermometer exceeding 60° in the west and south of France, and exceeding 70° in several parts of Spain and Italy.

*Wind* blowing a gale from the North-Eastward in the east of Scotland, from the Northward or North-Westward on all our own west and south-west coasts, and from the Westward in the English Channel—gale severe at Scilly. Strong from the Westward in the west of France, moderate to fresh from the South-Westward or Southward over the Netherlands and the eastern and central parts of England; South-Easterly over Denmark and north Germany. Variable over the northern parts of Scandinavia, and also in the south of Russia; calm in Austria; Easterly or North-Easterly over northern Italy. Subsequently veering to the North-Westward or Northward over England; gale in west moderating slightly.

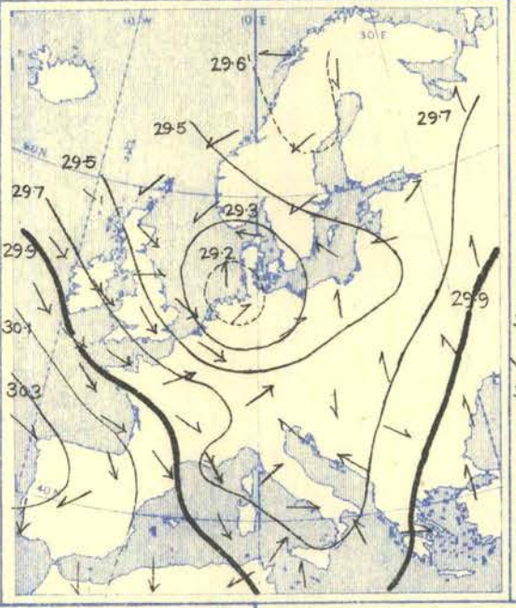
*Barometer* highest, 30·2 ins. and upwards in the western parts of the Spanish Peninsula, and also in the extreme south of Russia. Lowest, 29·1 ins. in a deep depression with its centre over the north of England; 29·4 ins. and less in a shallow disturbance over the south-west of Finland. Depression over our Islands subsequently moving eastwards to the North Sea; barometer rising briskly in its rear.

## Saturday, 8th April.

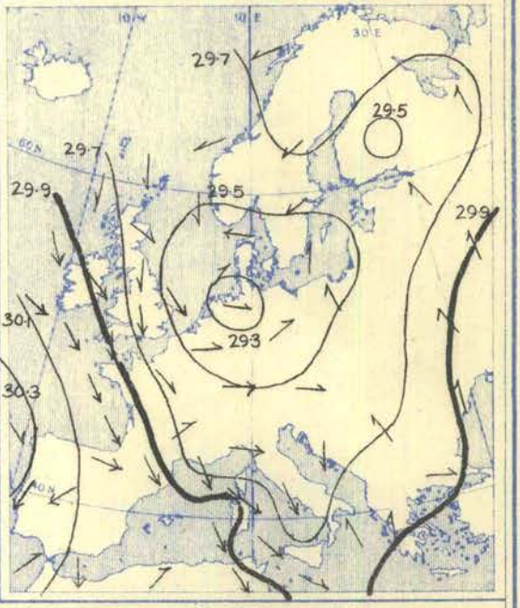
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine in places, but squally and showery over the United Kingdom generally. Dull and unsettled over the greater part of the Continent, with rain in several parts of Austria and central France, as well as at Wisby and Fanö; fine over the Spanish Peninsula and the extreme south of France and also in the west of Norway. Snow and hail squalls, occurring later in many parts of England and France; thunderstorms reported in the south-east of England.

*Temperature* fallen in the western and central countries, but risen elsewhere. Morning readings highest, 64° at Oran, 62° at Palermo, and 61° at Algiers; above 55° at the Mediterranean and Adriatic stations generally. Lowest, 28° at Bodö, 30° at Haparanda and 31° at Archangel and Moscow; below 40° at several of our own northern stations. Rising during day to 50° or slightly above it on many parts of our western and southern coasts, and to 56° at Leith; exceeding 60° over southern Europe generally, and reaching 70° at Lisbon and San Fernando. Ground frost occurring over England at night.

*Wind* fresh to strong from the North-Westward over our Islands, France and the western parts of the Mediterranean, with a gale in the Irish Sea, as well as in the extreme south of France. South-Westerly or Southerly over Italy and Germany; South-Easterly in Denmark; Easterly or North-Easterly in Scandinavia; variable in Austria; light from the Southward over Russia. Northerly over the Spanish Peninsula. Subsiding a little later on our own western coasts, but severe squalls from the North-Westward occurring over England and France.

*Barometer* highest, 30·1 ins. to 30·4 ins. in an anticyclone over the Spanish Peninsula and the Bay of Biscay; 30·0 ins. and upwards in another system over the southern parts of Russia. Lowest, 29·2 ins. and less in a well-marked depression lying over the south-eastern part of the North Sea; 29·6 ins. and less in another disturbance over northern Italy and the Gulf of Genoa. Depression over North Sea moving very slowly eastwards later; small secondary systems passing south-eastwards across the United Kingdom.

### GENERAL NOTES.

Throughout the greater part of the week barometrical pressure remained high over southern Europe, the winds in that region being somewhat variable, and the weather mostly fair and warm. In the northern and north-western countries, however, and occasionally in the central regions also, the conditions were affected by depressions which advanced from the Atlantic, the winds varying between South-West and North-West, with changeable weather, and in many places frequent falls of rain. In the early part of the week the depressions moved along in a tract lying to the northward of our Islands, the passage of a large and deep disturbance on the 4th being attended by Westerly gales on all our more northern coasts. On the night of the 6th, a still deeper system appeared off the north-west of Ireland, its centre passing eastwards next day across the north of England to the southern parts of the North Sea. The progress of the depression was attended by gales from South-West or West over nearly the whole of Ireland and England, the gale being very severe in the west; in the rear of the disturbance the wind veered to the North-Westward, and on the 8th some very severe squalls were experienced over England, with showers of hail or snow, and thunderstorms in a few places. At the close of the week another depression was developed over the Gulf of Genoa, and the weather over southern Europe was also becoming unsettled, with rain in several places, and strong North-Westerly winds in the south of France.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 80.

| Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 35·6 | ? | 38 | ? | WATERGATE (Emsworth) | 22·0 | ? | 24 | ? |
| STRATHPEFFER SPA | 22·6 | - 7·8 | 24 | -10 | BRIGHTON | 24·8 | -10·5 | 27 | -13 |
| EDINBURGH | 23·6 | - 2·0 | 25 | - 3 | BOGNOR | 24·3* | ? | 27* | ? |
| MORPETH | 39·0 | ? | 42 | ? | EASTBOURNE | 24·0 | -13·2 | 26 | -15 |
| NEWCASTLE-ON-TYNE | 26·0 | ? | 28 | ? | VENTNOR HOSPITAL | 19·2 | ? | 21 | ? |
| OSWALDKIRK (Yorkshire) | 20·3 | - 9·7 | 22 | -11 | SOUTHPORT | 21·3 | ? | 23 | ? |
| HOLLESLEY BAY | 27·3 | ? | 30 | ? | COLWYN BAY | | | | |
| SHEFFIELD | 26·4 | ? | 29 | ? | ABERDOVEY | 16·8* | ? | 18* | ? |
| WORKSOP | 18·9 | - 8·2 | 21 | -10 | TENBY | 16·5 | -24·1 | 18 | -23 |
| THURCASTON (Leicestershire) | 22·9 | - 4·1 | 25 | - 4 | NEWQUAY | | | | |
| PLUMSTEAD COMMON | 17·0 | ? | 19 | ? | TORQUAY | 24·7* | -14·3 | 27* | -16 |
| MARGATE | 21·2 | -11·0 | 23 | -13 | GUERNSEY | 19·8* | -21·0 | 22* | -24 |
| WESTBOURNE (Emsworth) | 24·1* | -14·4 | 26* | -18 | | | | | |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| Date of Report. | Names of Stations. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| Week ending Feb. 4th, 1899 | Oswaldkirk | — | — | — | — | — | — | — | — | — | — | — | 7·0 | - 4·2 | 11 | - 8 |
| ,, ,, Mar. 4th, ,, | Alnwick Castle | 52 | 22 | 49·5 | 33·9 | 41·5 | + 2·9 | 20 | 32 | — | — | — | — | — | — | — |
| ,, ,, ,, ,, ,, | Cranley | 58 | 20 | 50·0 | 25·5 | 37·4 | - 3·6 | 22 | 61 | 1 | 0·02 | ? | — | — | — | — |
| ,, ,, ,, ,, ,, | Oswaldkirk | — | — | — | — | — | — | — | — | — | — | — | 33·3 | +15·9 | 45 | +19 |
| ,, ,, ,, 11th, ,, | Colwyn Bay | — | — | — | — | — | — | — | — | — | — | — | 37·3 | ? | 48 | ? |
| ,, ,, ,, ,, ,, | Tenby | — | — | — | — | — | — | — | — | — | — | — | 32·0 | + 3·8 | 41 | + 4 |

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. No. 15.] *Third Series.* WEEK ENDING SATURDAY, APRIL 15TH, 1899. [*Price 6d.* *Annual Subscription post paid* £1 10s. 0d.

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 86.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 54 | 26 | 46·5 | 34·2 | 40·1 | 3 below | 13 | - 7 | 29 | + 5 | 155 | + 20 | 505* | - 46 |
| | 1. SCOTLAND, EAST | 54 | 25 | 46·2 | 34·1 | 39·9 | 3 below | 12 | -15 | 29 | + 3 | 195 | + 13 | 560 | - 25 |
| | 2. ENGLAND, N.E. | 53 | 28 | 46·4 | 35·7 | 40·8 | 3 below | 12 | -13 | 23 | + 3 | 280 | + 99 | 404 | -102 |
| | 3. ENGLAND, EAST | 61 | 31 | 50·6 | 37·3 | 43·6 | 1 below | 31 | - 2 | 13 | - 8 | 357 | +128 | 390 | -179 |
| | 4. MIDLAND COUNTIES | 59 | 28 | 49·8 | 36·5 | 42·8 | 2 below | 29 | - 8 | 15 | - 7 | 369 | +117 | 432 | -137 |
| | 5. ENGLAND SOUTH | 62 | 31 | 51·8 | 38·6 | 44·9 | 2 below | 35 | - 1 | 10 | - 7 | 417 | +153 | 276 | -180 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 50 | 30 | 47·2 | 37·0 | 41·8 | 3 below | 15 | -13 | 19 | + 1 | 229 | + 34 | 356 | - 65 |
| | 7. ENGLAND, N.W. | 51 | 30 | 47·5 | 38·2 | 42·7 | 3 below | 21 | - 8 | 11 | - 5 | 314 | +119 | 291 | -134 |
| | 8. ENGLAND, S.W. | 58 | 32 | 50·8 | 39·5 | 44·9 | 1 below | 31 | - 4 | 7 | - 4 | 426 | +135 | 224 | -118 |
| | 9. IRELAND, NORTH | 54 | 30 | 48·7 | 37·1 | 42·6 | 3 below | 25 | - 8 | 14 | - 1 | 310 | + 54 | 300 | - 65 |
| | 10. IRELAND, SOUTH | 58 | 29 | 51·3 | 38·4 | 44·5 | 2 below | 33 | - 4 | 10 | - 1 | 457 | +107 | 231 | - 48 |
| | —CHANNEL ISLANDS | 55 | 38 | 52·4 | 43·5 | 47·7 | 1 below | 40 | 0 | 0 | - 3 | 624 | +252 | 80 | - 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 86.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 5 | 8 | 2 more | 71 | - 1 | 16·2 | + 1·1 | 34 | + 2 | 35 | + 1 | 262 | + 30 | 24 | + 3 |
| | 1. SCOTLAND, EAST | 5 | 7 | 2 more | 64 | + 8 | 10·2 | + 1·8 | 28 | - 2 | 29 | - 4 | 297 | + 29 | 29 | + 3 |
| | 2. ENGLAND, N.E. | 6 | 9 | 5 more | 59 | + 6 | 6·5 | + 0·1 | 21 | - 5 | 22 | - 5 | 289 | + 26 | 28 | + 3 |
| | 3. ENGLAND, EAST | 6 | 9 | 5 more | 57 | + 5 | 6·3 | + 0·2 | 29 | - 8 | 31 | - 9 | 410 | + 89 | 37 | + 9 |
| | 4. MIDLAND COUNTIES | 6 | 9 | 4 more | 55 | + 5 | 8·6 | + 1·5 | 27 | - 3 | 28 | - 5 | 340 | + 76 | 33 | + 7 |
| | 5. ENGLAND, SOUTH | 6 | 10 | 6 more | 49 | + 1 | 7·4 | - 0·3 | 29 | - 6 | 31 | - 7 | 397 | + 83 | 37 | + 8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 5 | 12 | 5 more | 68 | + 8 | 16·1 | + 1·3 | 27 | - 7 | 29 | - 7 | 268 | + 4 | 26 | + 1 |
| | 7. ENGLAND, N.W. | 6 | 12 | 8 more | 64 | + 9 | 11·2 | + 2·5 | 24 | - 7 | 26 | - 8 | 325 | + 55 | 30 | + 5 |
| | 8. ENGLAND, S.W. | 6 | 13 | 7 more | 60 | + 5 | 14·5 | + 3·5 | 34 | - 6 | 36 | - 7 | 379* | + 25 | 35 | + 3 |
| | 9. IRELAND, NORTH | 5 | 11 | 6 more | 74 | +10 | 11·3 | + 1·1 | 30 | - 1 | 31 | - 2 | 325 | + 63 | 31 | + 6 |
| | 10. IRELAND, SOUTH | 6 | 8 | 2 more | 63 | + 5 | 14·1 | + 2·8 | 30 | - 6 | 31 | - 8 | 347 | + 31 | 33 | + 3 |
| | — CHANNEL ISLANDS | 6 | 10 | 5 more | 59 | - 2 | 9·6 | + 0·1 | 37 | - 6 | 39 | - 8 | 413 | + 46 | 40 | + 5 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was in a very unsettled condition generally. Falls of cold rain, sleet or snow were of frequent occurrence over the northern and north-eastern parts of the Kingdom, and of rain in the south and south-west. Thunderstorms were experienced in several parts of the country on Thursday.

*Temperature* was below the mean, the deficit ranging from 1° in England E., England S.W., and the Channel Islands, to 3° in many of the northern districts. The highest of the maxima were recorded on the 10th over England, but on irregular dates in Ireland and Scotland; they ranged from 62° in England S., and 61° in England E., to 51° in England N.W., and to 50° in Scotland W. The lowest of the minima were registered on the 12th, and ranged from 25° in Scotland E., and 26° in Scotland N., to 32° in England S.W., and to 38° in the Channel Islands.

*Rainfall* exceeded the mean in all districts, the excess being in most cases very considerable.

*Bright Sunshine* was deficient in all districts excepting Scotland N. The percentage of the possible duration ranged from 39 in the Channel Islands, 36 in England S.W. and 35 in Scotland N., to 31 over Ireland and in England S. and E., and to 22 in England N.E.

*Barometer and Wind.*—The conditions during this period were mainly influenced by two depressions which travelled over us from the north-westward. The first had reached the southern parts of the North Sea by Monday, and had passed away to Denmark by Tuesday. Increasing South-Westerly to Westerly and North-Westerly winds accompanied the passage of this depression over our Islands, but in no case was any serious gale experienced. The second system appeared off our north-west coasts on Wednesday, and moving slowly to the east-south-eastward it became complex, and developed a second minimum over the Channel. At the close of the week it was moving away slowly from our east coasts to the north-eastward. The winds accompanying this system were irregularly cyclonic, being chiefly Easterly and North-Easterly in the north, with a slight gale at Aberdeen; South-Westerly to North-Westerly and North-Easterly, strong to moderate, in the west, and Westerly to North-Westerly in the south and south-east.

267 | 90 Wy. & S., Ltd
612 | 70 4 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 85 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 46 | 30 | 43·9 | 33·6 | 38·5 | − 2·5 | 5 | 29 | 5 | 1·03 | + 0·55 | * | * | * | * |
| | Stornoway | 51 | 30 | 47·3 | 34·0 | 40·3 | − 2·3 | 15 | 29 | 6 | 1·40 | + 0·79 | 39·9 | + 7·0 | 41 | + 6 |
| | Wick | 49 | 30 | 46·0 | 35·0 | 40·2 | − 2·4 | 11 | 25 | 6 | 0·51 | + 0 13 | * | * | * | * |
| | Lairg Ⓢ | 54 | 27 | 47·4 | 31·7 | 39·2 | − 3·0 | 15 | 37 | 5 | 1·06 | + 0·49 | * | * | * | * |
| | Glencarron Ⓢ | 49 | 26 | 45·6 | 33·2 | 39·1 | − 3·1 | 10 | 31 | 5 | 0·88 | − 0·09 | * | * | * | * |
| | Fort Augustus Ⓢ | 52 | 32 | ?48·0 | ?35·7 | ?41·6 | ? − 1·9 | ?17 | ?25 | 4 | 0·27 | − 0·18 | 26·5 | + 1·2 | 27 | + 2 |
| | Fort William Ⓢ | 50 | 29 | 47·6 | 36·1 | 41·6 | − 2·6 | 16 | 23 | 4 | 0·31 | − 0·48 | 32·3 | + 2·3 | 33 | + 1 |
| 1. SCOTLAND E. | Nairn | 52 | 28 | 48·6 | 34·3 | 41·1 | − 2·5 | 18 | 29 | 5 | 0·53 | + 0·25 | * | * | * | * |
| | Aberdeen | 49 | 31 | 46·1 | 36·3 | 41·0 | − 2·3 | 11 | 21 | 4 | 0·59 | + 0·12 | 37·3 | + 3·3 | 38 | + 2 |
| | Braemar Ⓢ | 48 | 25 | 42·3 | 31·6 | 36·7 | − 3·5 | 1 | 35 | 7 | 1·41 | + 0·91 | 32·3† | + 2·3† | 33† | + 1† |
| | Ochtertyre Ⓢ | 54 | 26 | 49·1 | 33·9 | 41·1 | − 2·6 | 20 | 31 | 4 | 0·45 | − 0·10 | * | * | * | * |
| | Leith Ⓢ | 52 | 30 | 47·1 | 35·3 | 40·9 | − 3·8 | 14 | 25 | 4 | 0·32 | − 0·04 | * | * | * | * |
| | Marchmont Ⓢ | 49 | 28 | 44·1 | 33·0 | 38·3 | − 4·3 | 6 | 31 | 5 | 0·59 | + 0·05 | 22·8 | − 7·1 | 24 | − 9 |
| 2. ENGLAND, N.E. | Alnwick Castle | 49 | 31 | 45·5 | 35·3 | 40·2 | − 2·2 | 10 | 25 | 5 | 1·08 | + 0·59 | * | * | * | * |
| | Durham | 52 | 28 | 45·7 | 33·6 | 39·4 | − 4·1 | 10 | 30 | 7 | 1·11 | + 0·63 | 23·2 | − 4·8 | 24 | − 6 |
| | Shields | 49 | 34 | 45·4 | 36·1 | 40·5 | − 2·8 | 10 | 21 | 5 | 0·97 | + 0·57 | * | * | * | * |
| | Scarborough Ⓜ | 50 | 28 | 46·2 | 34·6 | 40·1 | − 4·1 | 12 | 27 | 6 | 0·81 | + 0·36 | 19·2 | ? | 20 | ? |
| | York | 53 | 29 | 48·3 | 35·7 | 41·7 | − 3·2 | 18 | 24 | 7 | 0·78 | + 0·37 | ? | ? | ? | ? |
| | Spurn Head | 52 | 36 | 47·4 | 38·7 | 42·8 | − 1·0 | 19 | 9 | 6 | 0·59 | + 0·27 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 57 | 31 | 49·2 | 37·0 | 42·8 | − 2·7 | 27 | 14 | 6 | 0·83 | + 0·43 | 23·3 | − 9·7 | 25 | −11 |
| | Yarmouth | 57 | 36 | 48·3 | 38·1 | 43·0 | − 1·0 | 23 | 11 | 6 | 0·97 | + 0·57 | * | * | * | * |
| | Geldeston | 59 | 32 | 51·3 | 37·0 | 43·8 | − 1·1 | 34 | 14 | 6 | 1·23 | + 0·86 | 26·9 | −10·0 | 28 | −12 |
| | Cambridge | 61 | 31 | 52·4 | 36·6 | 44·1 | − 1·9 | 37 | 15 | 5 | 0·71 | + 0·34 | 29·4 | − 5·6 | 31 | − 7 |
| | Felixstowe | 61 | 31 | 51·9 | 38·0 | 44·6 | − 0·2 | 35 | 11 | 5 | 0·57 | ? | 33·8 | ? | 36 | ? |
| | Rothamsted | 60 | 32 | 50·6 | 37·0 | 43·5 | − 1·4 | 32 | 14 | 6 | 0·78 | + 0·31 | 28·5 | − 5·1 | 30 | − 6 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 53 | 30 | 48·9 | 35·9 | 42·1 | − 3·4 | 26 | 17 | 5 | 0·83 | + 0·44 | * | * | * | * |
| | Loughborough | 56 | 30 | 50·7 | 37·0 | 43·5 | − 2·4 | 32 | 14 | 7 | 0·88 | + 0·48 | * | * | * | * |
| | Stamford (Duddington) | 57 | 30 | 50·4 | 36·7 | 43·2 | − 2·5 | 31 | 15 | 6 | 0·83 | + 0·43 | * | * | * | * |
| | Cheadle Ⓜ | 53 | 31 | 47·9 | 35·2 | 41·3 | − 2·7 | 17 | 26 | 6 | 1·08 | + 0·59 | * | * | * | * |
| | Shirley (near Solihull) | 56 | 30 | 49·0 | 36·0 | 42·2 | − 2·5 | 27 | 17 | 7 | 1·12 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 53 | 30 | 48·5 | 36·0 | 42·0 | − 1·9 | 18 | 17 | 6 | 1·15 | + 0·72 | 30·7 | − 2·0 | 32 | − 3 |
| | Hereford Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 58 | 28 | 50·9 | 36·9 | 43·6 | − 1·1 | 33 | 14 | 6 | 0·50 | + 0·02 | 30·7 | − 3·1 | 32 | − 4 |
| | Oxford | 59 | 32 | 51·9 | 37·9 | 44·6 | − 1·6 | 35 | 11 | 6 | 0·60 | + 0·20 | 31·8 | − 1·3 | 33 | − 4 |
| 5. ENGLAND, S. | London | 62 | 33 | 52·9 | 38·3 | 45·3 | − 1·9 | 39 | 10 | 6 | 1·08 | + 0·68 | 24·9† | − 3·1† | 26† | − 4† |
| | Cranley Ⓜ | 61 | 31 | 53·4 | 37·4 | 45·0 | − 1·2 | 40 | 13 | 6 | 0·79 | ? | * | * | * | * |
| | Dungeness | 54 | 31 | 50·6 | 38·0 | 44·0 | − 1·8 | 31 | 11 | 6 | 0·96 | + 0·55 | * | * | * | * |
| | Hastings (St. Leonards) | 56 | 32 | 50·4 | 38·9 | 44·4 | − 2·1 | 30 | 9 | 5 | 0·94 | + 0·45 | 37·0 | − 2·0 | 39 | − 3 |
| | Southampton | 61 | 33 | 53·8 | 39·8 | 46·5 | − 1·2 | 41 | 6 | 5 | 1·12 | + 0·65 | 30·7 | − 7·3 | 33 | − 8 |
| | Hurst Castle | 55 | 36 | 51·6 | 40·4 | 45·7 | − 0·9 | 33 | 4 | 6 | 0·91 | + 0·49 | * | * | * | * |
| | Shaftesbury Ⓜ | 55 | 33 | 49·8 | 37·2 | 43·2 | − 1·8 | 29 | 13 | 7 | 1·27 | + 0·69 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 50 | 32 | 47·6 | 36·1 | 41·6 | − 3·5* | 16 | 22 | 6 | 1·57 | + 0·69 | * | * | * | * |
| | Glasgow | 48 | 32 | 46·2 | 37·1 | 41·4 | − 2·7 | 12 | 18 | 4 | 0·49 | − 0·01 | 16·1 | −11·7 | 17 | −12 |
| | Glenlee Ⓢ | 50 | 30 | 47·1 | 35·9 | 41·2 | − 2·5 | 14 | 23 | 4 | 0·72 | + 0·02 | * | * | * | * |
| | Douglas (Isle of Man) | 50 | 32 | 48·0 | 38·6 | 43·1 | − 1·7 | 22 | 10 | 6 | 1·85 | + 1·28 | 38·6 | − 1·1 | 41 | − 2 |
| 7. ENGLAND, N.W. | Stonyhurst | 48 | 31 | 45·9 | 36·5 | 41·0 | − 3·6 | 11 | 21 | 6 | 1·49 | + 0·89 | 21·4 | − 9·9 | 23 | −11 |
| | Blackpool Ⓜ | 50 | 33 | 48·7 | 37·4 | 42·8 | − 2·3 | 25 | 13 | 6 | 1·30 | + 0·86 | 20·6 | − 9·7 | 22 | −10 |
| | Manchester (Prestwich) | 49 | 30 | 46·4 | 36·5 | 41·2 | − 3·7 | 12 | 21 | 6 | 1·55 | + 1·07 | 18·8 | ? | 20 | ? |
| | Liverpool Obsy. (Bidston) | 51 | 37 | 48·3 | 39·0 | 43·4 | − 2·5 | 22 | 8 | 6 | 1·03 | + 0·65 | 17·5 | ? | 18 | ? |
| | Llandudno Ⓜ | 50 | 38 | 48·5 | 40·1 | 44·1 | − 2·7 | 23 | 5 | 6 | 1·00 | + 0·56 | 28·7 | − 3·1 | 30 | − 3 |
| | Holyhead | 50 | 37 | 47·4 | 39·9 | 43·5 | − 2·7 | 19 | 6 | 5 | 1·08 | + 0·63 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 56 | 32 | 51·1 | 37·9 | 44·2 | − 1·5 | 33 | 11 | 7 | 2·06 | + 1·43 | * | * | * | * |
| | Pembroke | 51 | 36 | 48·9 | 41·1 | 44·8 | − 1·2 | 23 | 3 | 7 | 0·80 | + 0·33 | 33·1 | − 6·9 | 35 | − 5 |
| | Clifton | 52 | 36 | 51·1 | 40·3 | 45·4 | − 0·3 | 31 | 5 | 6 | 1·20 | + 0·70 | * | * | * | * |
| | Arlington (N. Devon) | 54 | 35 | 49·0 | 37·7 | 43·1 | − 0·8 | 26 | 12 | 6 | 1·70 | + 1·03 | * | * | * | * |
| | Cullompton Ⓜ | 53 | 33 | 52·9 | 39·4 | 45·8 | − 1·4 | 38 | 7 | 6 | 1·66 | + 1·10 | 27·1 | − 7·9 | 29 | − 8 |
| | Falmouth | 58 | 38 | 51·2 | 41·3 | 46·0 | − 1·1 | 31 | 2 | 7 | 1·00 | + 0·35 | 40·4 | + 0·4 | 43 | 0 |
| | Plymouth | 57 | 35 | 50·8 | 39·9 | 45·1 | − 2·9 | 31 | 6 | 6 | 0·93 | + 0 40 | 31·7 | − 7·3 | 34 | − 8 |
| | Prawle Point | 55 | 36 | 51·7 | 39·3 | 45·2 | − 1·1 | 34 | 8 | 6 | 0·79 | + 0·34 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 48 | 36 | 46·0 | 38·0 | 41·8 | − 3·5 | 11 | 15 | 4 | 0·79 | ? | * | * | * | * |
| | Londonderry | 52 | 33 | 49·6 | 37·0 | 43·0 | − 3·2 | 28 | 14 | 5 | 0·94 | + 0·41 | * | * | * | * |
| | Edenfel (Omagh) | 52 | 30 | 48·6 | 35·0 | 41·5 | − 2·5 | 18 | 27 | 4 | 1·29 | + 0·79 | * | * | * | * |
| | Belmullet | 51 | 38 | 49·0 | 39·7 | 44·1 | − 2·7 | 24 | 6 | 7 | 1·26 | + 0·66 | * | * | * | * |
| | Markree Castle | 52 | 30 | 50·4 | 36·3 | 43·0 | − 2·5 | 31 | 16 | 5 | 1·10 | + 0·60 | 33·6 | + 1·8 | 35 | 0 |
| | Armagh | 54 | 32 | 50·1 | 35·1 | 42·2 | − 2·5 | 30 | 19 | 4 | 0·97 | + 0·49 | 25·8 | − 4·2 | 27 | − 5 |
| | Donaghadee | 49 | 33 | 47·3 | 38·3 | 42·6 | − 2·8 | 20 | 10 | 4 | 1·27 | + 0·80 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 55 | 36 | 51·4 | 38·5 | 44·6 | − 2·2 | 33 | 10 | 6 | 0·65 | + 0·17 | 30·2 | − 6·0 | 32 | − 7 |
| | Parsonstown | 53 | 32 | 51·0 | 35·9 | 43·1 | − 2·6 | 33 | 17 | 6 | 0·59 | + 0·09 | 29·8 | − 4·2 | 31 | − 6 |
| | Kilkenny | 55 | 31 | 51·4 | 37·6 | 44·2 | − 2·3 | 34 | 12 | 6 | 0·66 | + 0·15 | * | * | * | * |
| | Roche's Point | 58 | 36 | 52·3 | 41·1 | 46·4 | − 1·2 | 35 | 3 | 5 | 0·88 | + 0·17 | * | * | * | * |
| | Valencia | 54 | 37 | 50·9 | 41·3 | 45·9 | − 2·4 | 30 | 2 | 7 | 1·22 | + 0·38 | 29·4 | − 8·6 | 31 | −10 |
| | Killarney | 57 | 29 | 50·6 | 37·3 | 43·6 | − 3·2 | 31 | 13 | 5 | 1·15 | ? | * | * | * | * |
| | Foynes | 58 | 33 | 51·3 | 36·9 | 43·8 | − 2·5 | 34 | 14 | 4 | 0·67 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 55 | 41 | 52·4 | 43·6 | 47·8 | − 0·5 | 41 | 0 | 6 | 0·77 | + 0·26 | 36·5 | ? | 39 | ? |
| | Jersey | 53 | 38 | 52·3 | 43·3 | 47·6 | − 1·0 | 39 | 0 | 5 | 1·27 | + 0·77 | 38·8 | − 4·8 | 41 | 6 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

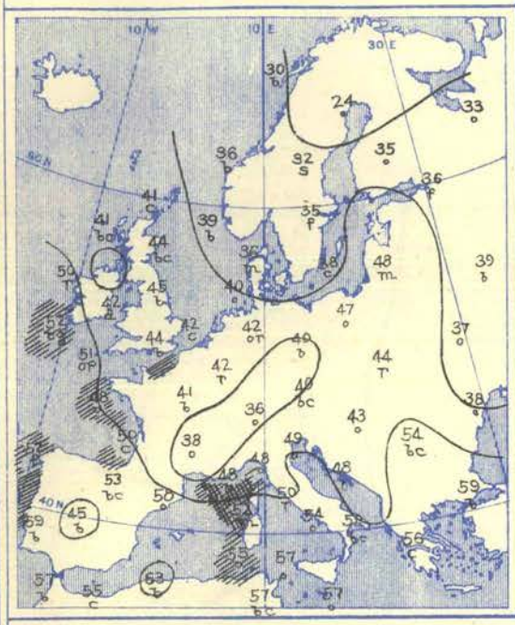
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

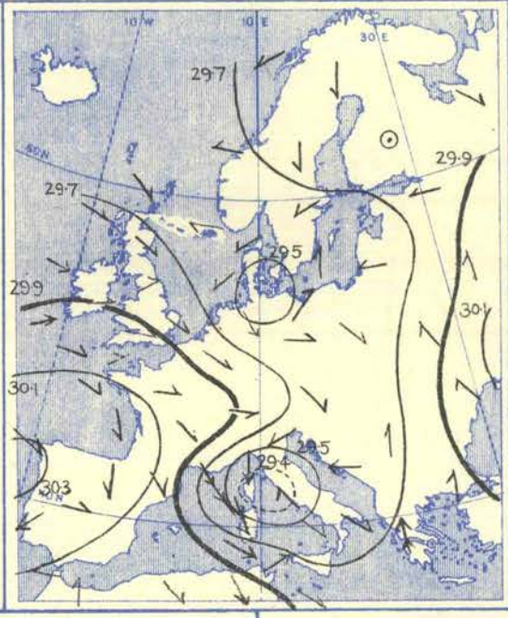
Sunday

## Sunday, 9th April.

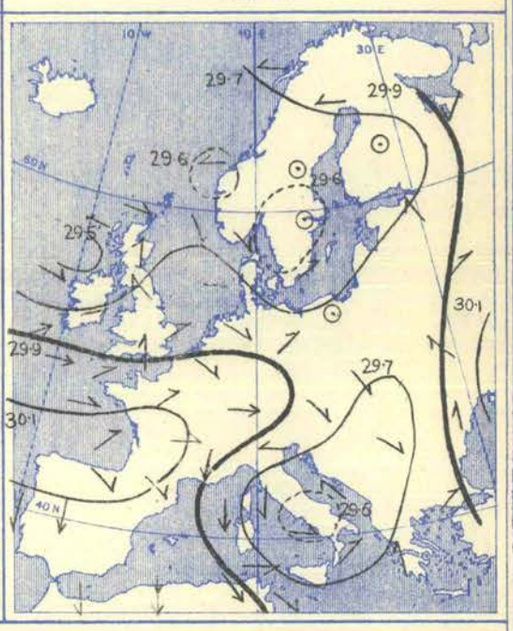
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over Scotland, becoming dull and very showery over Ireland, England, and the north of France; unsettled, squally, and showery over Italy also, fine over Spain. Showers later in most places (excepting the south-western countries)—considerable locally—more than an inch at Cape Gris Nez.

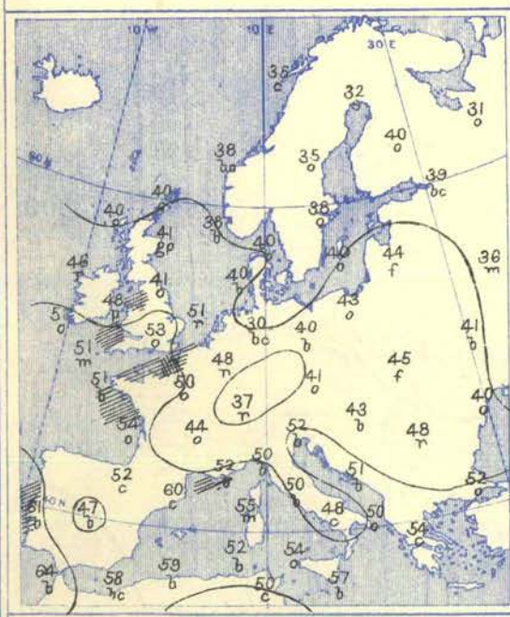
*Temperature* in morning highest, 63° at Algiers, 58° at Barcelona, 52° to 50° on our extreme south-west coast. Lowest, 24° at Haparanda, 30° to 35° over northern Europe generally; 40° at Copenhagen; 37° at Malin Head, 41° at Stornoway and Spurn Head. Rising later to between 50° and 58° over Ireland and England, to 57° at Paris, 63° at Nice, 66° at Palermo, and 72° at Oran.

*Wind* Westerly to North-Westerly over our Islands as a whole, and blowing rather strongly on the extreme north-west coasts of Ireland; North-Westerly and light in France. A cyclonic circulation prevailing over the north of Italy and the north-western part of the Mediterranean—the wind blowing a gale at Leghorn, Toulon, Sanguinaire, and Cagliari. South-Westerly breezes over Germany, Easterly in the north-west of Norway. Wind moderating over the Mediterranean later.

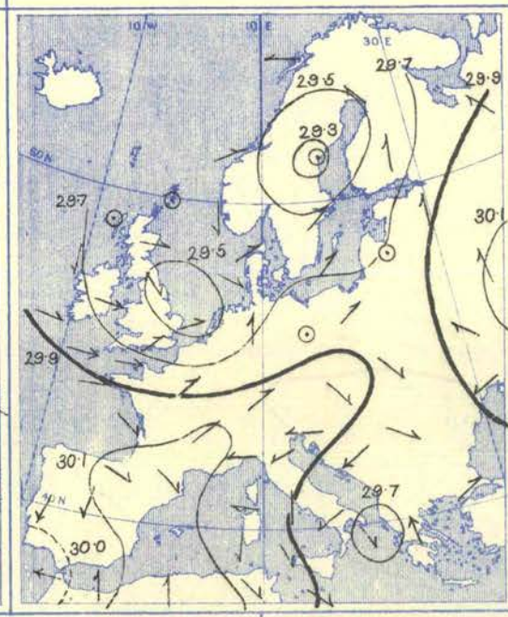
*Barometer* highest, (1) 30·3 ins. at Corunna, and exceeding 30·0 ins. over the whole of south-western Europe; (2) 30·1 ins. and more to 29·9 ins. over the southern half of Russia. Lowest, 29·5 ins. and less over Holstein, north-west Germany, and in the neighbourhood of Stockholm, and below 29·8 ins. in the north of Ireland; 29·4 ins. and less in a well-marked depression over the north of Italy. Falling decidedly at our northern stations later, rising over Italy.

## Monday, 10th April.

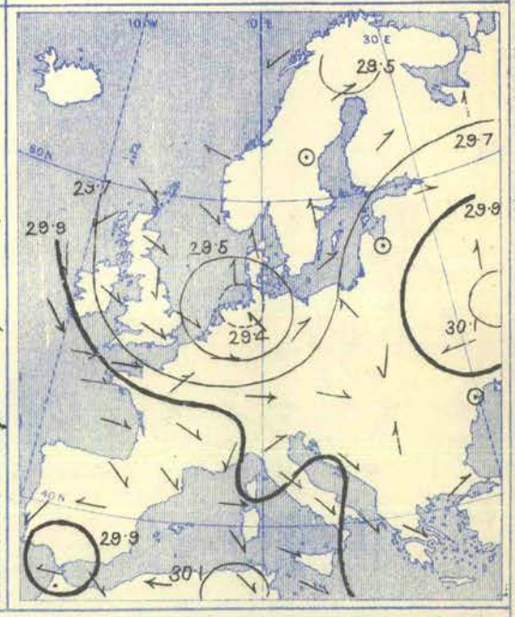
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning showery, changeable, and unsettled over the whole of northern, and north-western Europe, with snow at Haparanda, clear skies (temporarily) in Norway. Showers later in all parts of our Islands and their neighbourhood, sleet or hail at our northern stations. Rainfall at Berlin 0·75 ins.

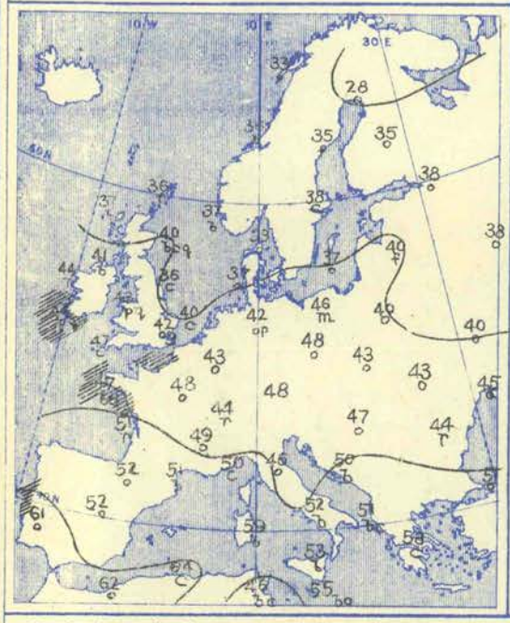
*Temperature* very variable. Highest, 60° at Barcelona, 49° to 54° in the west and north of France and the south and south-west of our Islands. Lowest, 31° at Archangel, 32° at Haparanda, and below 40° over the greater part of northern Continental Europe; 40° at Sumburgh Head, Stornoway, and Leith, 41° at Aberdeen and Shields; 40° also at many stations in central Europe. Rising later to between 60° and 62° over several parts of our south-eastern counties, to 60° at Paris, and to between 60° and 66° in the south of France; falling considerably over our Islands still later.

*Wind* (1) calm in Scotland, Northerly and North-Westerly at our western stations, Westerly over England; (2) cyclonic, but light over northern and south-eastern Europe; (3) light and anticyclonic over south-western Europe. Becoming Northerly and North-Westerly in our Islands later, and blowing strongly in places, but still South-Westerly in north-western Germany.

*Barometer* highest, 30·1 ins. and more to 30·0 ins. in an irregularly shaped anticyclone lying over south-western Europe, and in another (well formed) over central Russia. Lowest, (1) 29·3 ins. and less in a depression over Sweden; (2) 29·5 ins. and less in another over the north-east of England and the North Sea; (3) 29·8 ins. and less over south-eastern Europe. Rising decidedly over our Islands and north-western Europe later.

## Tuesday, 11th April.

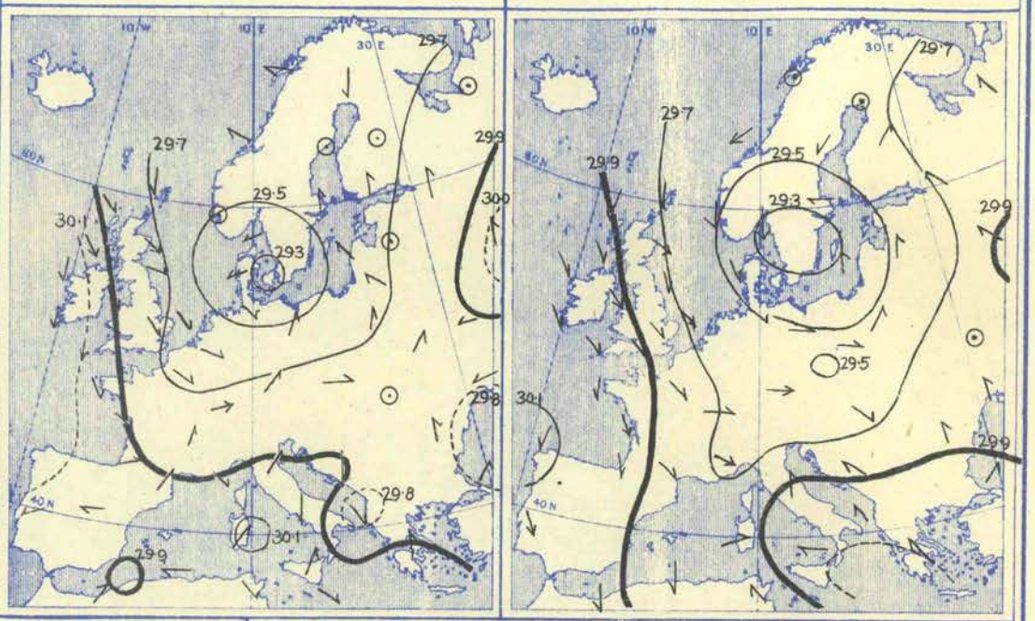
### Temperature and Weather. 8 a.m.



*Weather* in morning fine at many of the north-western stations, but showery at others, and changeable generally; snow falling at Nairn; fair over Spain, the south of France, and the Mediterranean; cold showers later over the greater part of our Islands, and, indeed, over western, northern, and central Europe as a whole—sleet and hail in the north and east.

*Temperature* decreasing over our Islands, increasing over central Europe. Highest, 64° at Algiers, 60° at Barcelona, 50° to 54° in the south of France, 51° at Vienna, 48° at Berlin. Lowest, (1) 28° at Haparanda, 35° at Kuopio and Hernösand, 38° at Moscow; (2) 36° at Sumburgh Head and Shields, 37° at Nairn, 40° at Wick, Aberdeen, York, and Cambridge. Rising later to between 54° and 50° at a few of our stations, to 50° at Paris, 63° at Nice, and 68° at Perpignan.

### Barometer and Wind. 8 a.m. and 6 p.m.

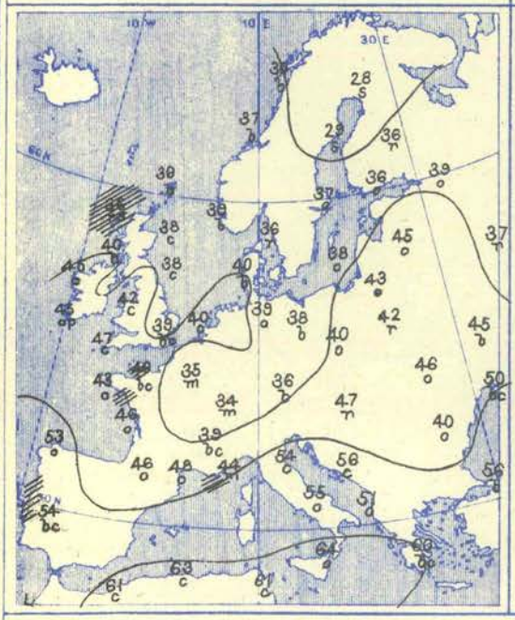


*Wind* Northerly or North-Westerly over our Islands generally, and blowing freshly in most places, very strongly at Aberdeen; Westerly in France, South-Westerly to Southerly over central Europe, Southerly to South-Easterly over the Baltic, South-Easterly to Easterly in Norway. Moderating a little and becoming more Northerly at our own stations later and blowing hard in Denmark.

*Barometer* highest, (1) 30·0 ins. and more to 29·9 ins. over central Russia; (2) 29·9 ins. and more over Spain; 30·0 ins. and more over the south and west of Ireland. Lowest, 29·3 ins. and less over the Sound and north-west of Germany. Rising over our Islands and France. The rise ceasing at our western stations later, and a further fall taking place over Denmark.

## Wednesday, 12th April.

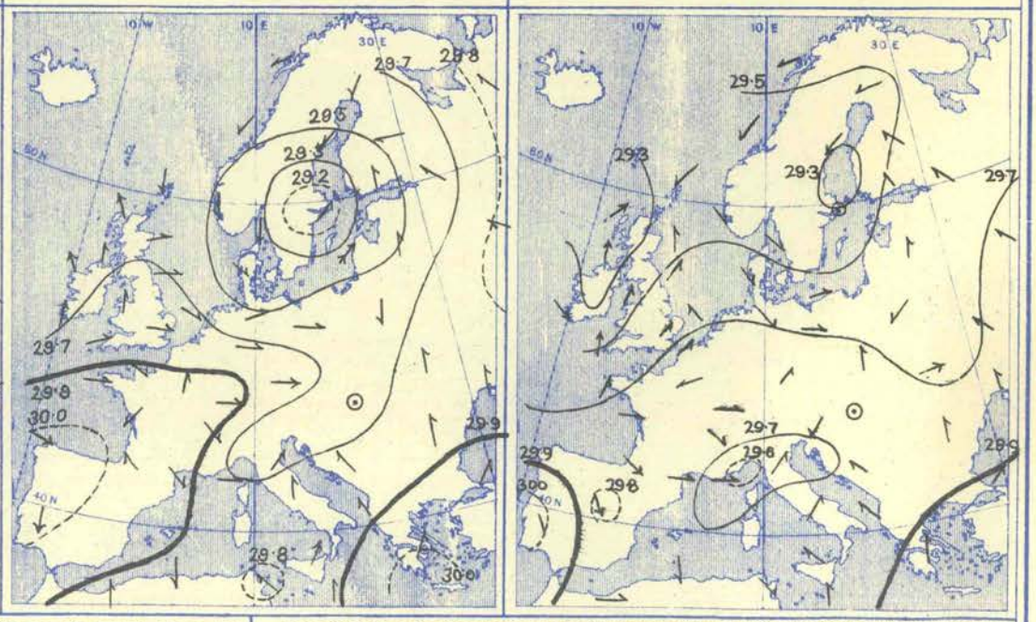
### Temperature and Weather. 8 a.m.



*Weather* in morning (1) very unsettled over northern Europe, with snow in several places, rain at Moscow; (2) fine over Great Britain and France; (3) becoming rough and unsettled over Ireland and the west of Scotland, with rain locally. Rainy in the north-east of Spain. Rain later over our western districts, the amounts being 0·5 in. in the south of Ireland; showers in several other places.

*Temperature* fallen over England and central Europe; beginning to rise in Ireland. Morning readings highest, 63° at Algiers, 55° at Cagliari and Rome, 47° at Scilly, 45° at Valencia. Lowest, 28° at Haparanda, 29° at Hernösand, 30° at Bodö, 35° to 40° in the north and east of Scotland, 37° at York, 39° in London, 35° at Paris. Rising later to between 50° and 55° over our southern and south-western counties, to 53° at Paris and to 61° at Nice.

### Barometer and Wind. 8 a.m. and 6 p.m.



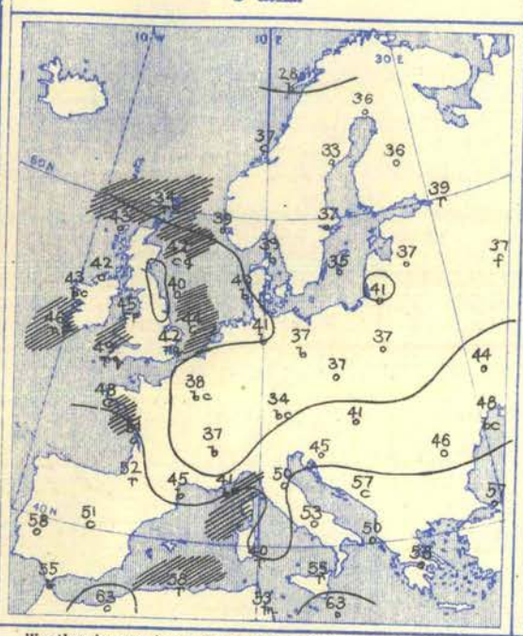
*Wind* (1) light and anticyclonic over south-western Europe; (2) cyclonic and rather strong over northern Europe round a centre lying near Stockholm; (3) Southerly, moderate, (but freshening) at our most western stations. Variable and light over central Europe. Becoming Southerly or South-Westerly over Great Britain later, but shifting suddenly to North-West in the west of Ireland.

*Barometer* in morning highest, 30·0 ins. and more to 29·9 ins. over south-western Europe, and exceeding 29·8 ins. all over France and the southern counties of England. A second (faint) high pressure area showing itself in the far north. Lowest, (1) 29·2 ins. and less in a complex depression near Stockholm, and below 29·5 ins. in a secondary "V" over central Europe; (2) 29·6 ins. and less over the Hebrides and west of Ireland. A depression approaching Stornoway later, and a distinct "V" advancing over Ireland. Distribution becoming very complex.

## Thursday, 13th April.

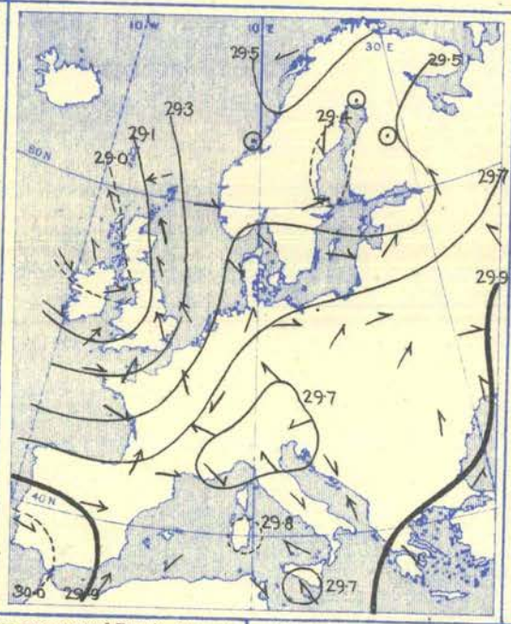
### Temperature and Weather.

8 a.m.

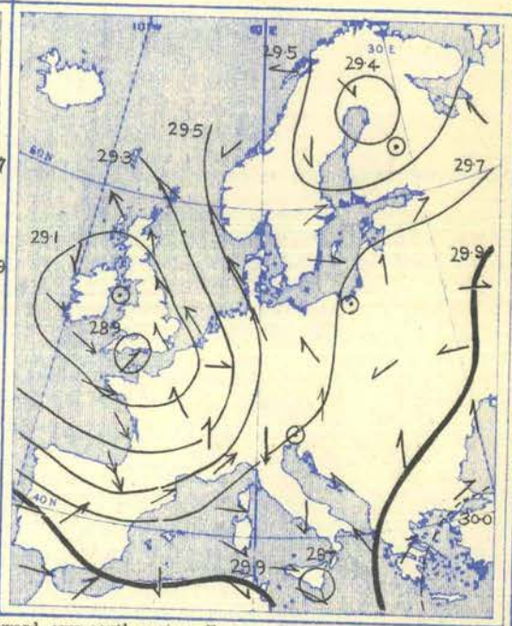


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair over Spain and the south of France; also over central Russia, but not at all settled over Europe as a whole. Very changeable, showery and unsettled over our Islands and the north of France, but not so cold as on Wednesday. Showers of cold rain (in some places hail) over our Islands later, considerable rain in France (1·4 ins. at Cape Grisnez) and as much as 0·75 in. at Nice.

*Temperature* risen a little over western Europe, considerably in Scotland, fallen over central Europe. Highest in morning, 63° at Oran and Nemours; above 50° over many parts of the Mediterranean and south-west of France; 57° at Constantinople, 50° at Odessa; 49° at Lorient and Scilly, 46° at Valencia, 45° at Holyhead. Lowest, 33° at Hernösand, and below 40° all over northern and north-eastern Europe, 34° at Sumburgh Head. Rising later to between 50° and 54° at several of our southern stations, to 66° at Naples and Malta, and to 70° in some parts of Algeria.

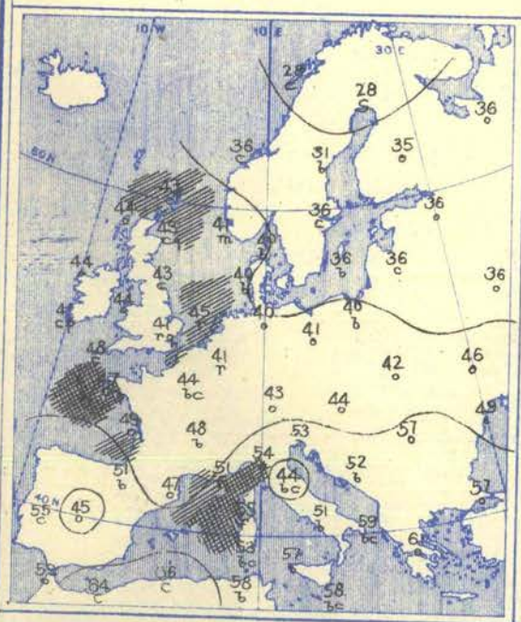
*Wind* variable from the Westward over south-western Europe; Southerly over France and Great Britain, light and variable over the bulk of Continental Europe; North-Westerly to Westerly over Ireland; not blowing hard anywhere. Subsequently shifting to South-East (strong and squally) over the North Sea, and blowing a moderate gale from North-West over the Bay of Biscay.

*Barometer* highest, (1) 30·0 ins. and more to 29·7 ins. over Spain; (2) 29·9 ins. and more over central Russia, and exceeding 29·8 ins. in a "ridge" over central Europe. Lowest, 29·0 ins. and less over the north of Ireland, the Irish Sea, and the west of Scotland Depression in north-west moving south-eastwards later and a new minimum appearing over the English Channel.

## Friday, 14th April.

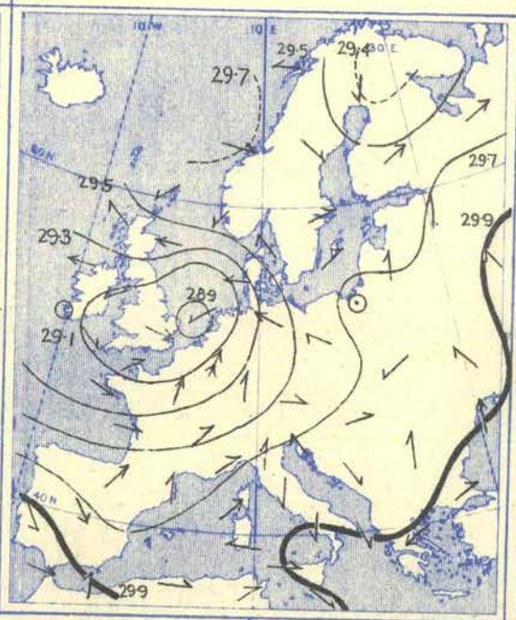
### Temperature and Weather.

8 a.m.

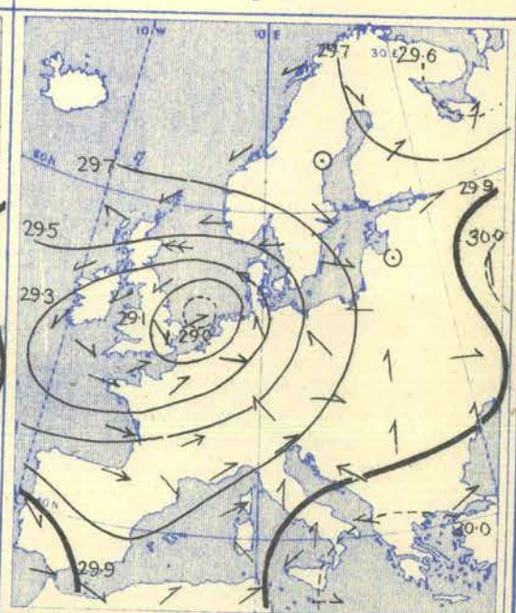


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning still fair over south-western and southern Europe and central Russia, very unsettled over the north-western countries and becoming colder. Cold rain showers later in western and some parts of central Europe; thunderstorms in the south of Ireland, and also at Cuxhaven; very heavy rain at Toulon, and at Leghorn and Florence.

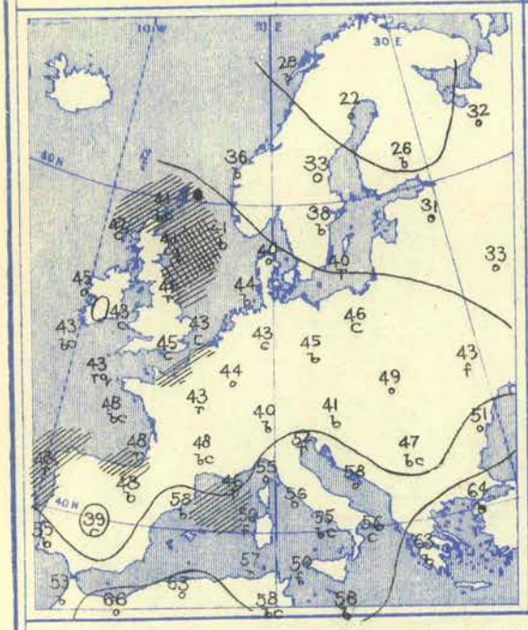
*Temperature* inclined to fall over north-west Europe, but to rise at the Continental stations. Morning readings highest, 66° at Algiers, 60° and more in Greece, 55° at Sanguinaires, 51° at Biarritz, 48° at Lorient and Scilly, 44° at Holyhead and Belmullet. Lowest, 28° at Haparanda, 35° at Kuopio, 36° at Moscow, and also at Wisby. Rising later to between 50° and 54° at our south-western coast stations, to 63° at Biarritz, to 66° at Cagliari, and to 77° in some parts of Algeria.

*Wind* Easterly, strong, in Scotland and the north of Ireland, North-Westerly on our south-west coasts, Westerly and South-Westerly over France and the Netherlands, South-Easterly to Easterly on the eastern shores of the North Sea; South-Westerly in Finland, North-Westerly over the north of Scandinavia. No important change later.

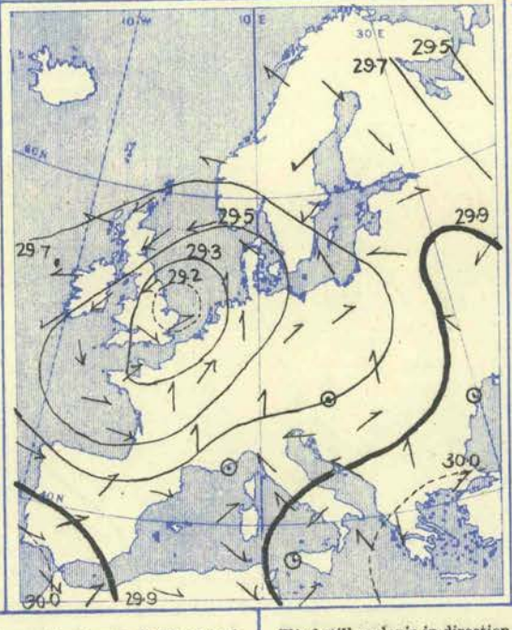
*Barometer* highest, 29·9 ins. and more to 29·5 ins. over southern Europe, and 29·9 ins. and more to 29·7 ins. over central Russia; 29·7 ins. off the north-west of Norway. Lowest, 28·9 ins. and less in a depression off our east coasts, and below 29·1 ins. in a secondary over Wales, Devon, and Cornwall. No appreciable change in position later, but barometer beginning to rise in our Islands.

## Saturday, 15th April.

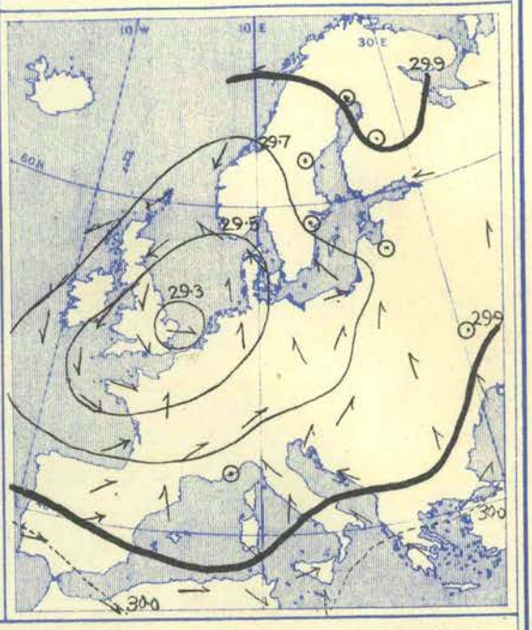
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* over our Islands finer generally than of late, but still very cloudy over England and showery, with an inclement air; fair as a whole over Scotland and Ireland. Showers later in almost all parts of the Kingdom, and over western Europe as a whole, lightning at Prawle Point, and a thunderstorm at Nice.

*Temperature* still falling in most parts of central Europe. Morning readings highest, 66° at Algiers, 63° at Patras, 58° at Barcelona, 55° at Lisbon, 48° in the west of France, 43° to 45° in the western parts of the British Islands. Lowest, 22° at Haparanda, 29° at Hangö, 33° at Moscow, 36° at Christiansund; 41° at Sumburgh Head, Aberdeen and Shields; 39° at Parsonstown. Rising later to only 50° to 54° over the southern parts of our Islands and to 53° at Paris, but touching 61° at Berlin and 63° at Perpignan.

*Wind* still cyclonic in direction over western Europe—North-Easterly in Scotland, Northerly in Ireland, North-Westerly over the south-west of England; Westerly to South-Westerly over France, Southerly to Easterly on the eastern shores of the North Sea. Light and anti-cyclonic over southern and eastern Europe.

*Barometer* highest, 30·0 ins. and more to 29·7 ins. over the Iberian Peninsula, and over south-eastern Europe; exceeding 29·9 ins. at Moscow; 29·8 ins. and more over Lapland. Lowest, 29·2 ins. and less in the depression off the Yorkshire coast, and below 29·4 ins. in a "V" spreading south-westwards over our south-western counties and Brittany. Rising over our Islands and France later.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟿ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

The principal features of the weather of the past week have been (1) the persistency with which pressure has remained highest over south-western Europe and central Russia—although it decreased greatly in all districts until Thursday—and (2) the showery state caused by the advance of two well-defined depressions over the British Islands from the north-westward, and the singular manner in which they moved to the north-eastward and northward, after passing away from us to the North Sea and the Baltic.

The first one reached our north-western coasts at 6 p.m. on the 9th, a position off the Yorkshire coast at 8 a.m. on the 10th, Copenhagen and its neighbourhood by 8 a.m. 11th, and Sweden on the 12th.

The second appeared off our north-west coasts on the 12th, and was reinforced in the following night. It assumed definite form as it travelled across our Islands on the 13th, and had developed a local minimum over the Channel at 6 p.m. on Thursday. This then became the main disturbance, reaching the east coast of England early on the 14th, then moving irregularly, and finally passing to the eastward of the North Sea on Sunday (16th). Cold showery weather has been general, snow in many places, thunder in a few, and cold Northerly to North-Westerly winds were still the dominant feature in our Islands at the close of the week, with a rising barometer.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 86.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 39·8 | ? | 41 | ? | WATERGATE (Emsworth) | 28·1 | ? | 30 | ? |
| STRATHPEFFER SPA | 29·9 | − 2·5 | 31 | − 4 | BRIGHTON | 29·2 | − 8·8 | 31 | −11 |
| EDINBURGH | 19·2 | − 7·8 | 20 | − 9 | BOGNOR | 32·1* | ? | 34* | ? |
| MORPETH | | ? | | ? | EASTBOURNE | 37·7 | − 1·2 | 40 | − 2 |
| NEWCASTLE-ON-TYNE | 13·4 | ? | 14 | ? | VENTNOR HOSPITAL | 29·5 | ? | 31 | ? |
| OSWALDKIRK (Yorkshire) | 27·6 | − 4·2 | 29 | − 4 | SOUTHPORT | 26·7 | ? | 28 | ? |
| HOLLESLEY BAY | 33·3 | ? | 35 | ? | COLWYN BAY | 29·0 | ? | 31 | ? |
| SHEFFIELD | 21·2 | ? | 22 | ? | ABERDOVEY | 31·6* | ? | 33* | ? |
| WORKSOP | 19·8 | − 8·7 | 21 | −10 | TENBY | 30·8 | −12·3 | 32 | −15 |
| THURCASTON (Leicestershire) | 24·5 | − 4·5 | 26 | − 4 | NEWQUAY | 35·3 | − 4·3 | 38 | − 4 |
| PLUMSTEAD COMMON | 13·5 | ? | 14 | ? | TORQUAY | 36·6* | − 4·2 | 39* | − 5 |
| MARGATE | 21·4 | −12·5 | 23 | −14 | GUERNSEY | 34·1* | − 8·9 | 36* | −11 |
| WESTBOURNE (Emsworth) | 35·3* | − 5·2 | 38* | − 7 | | | | | |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

Wyman & Sons, Ltd., Lith., 63, Carter Lane,

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

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VOL. XVI. NO. 16.] *Third Series.* WEEK ENDING SATURDAY, APRIL 22ND, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| DISTRICTS. (See p. 92.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. 0. SCOTLAND, NORTH | 54 | 20 | 44·4 | 28 7 | 36·1 | 8 below | 7 | −18 | 45 | +26 | 162 | + 2 | 550 | − 20 |
| 1. SCOTLAND, EAST | 54 | 17 | 46·4 | 30·6 | 38·1 | 6 below | 12 | −19 | 40 | +21 | 207 | − 6 | 600 | − 4 |
| 2. ENGLAND, N.E. | 57 | 27 | 49·1 | 35·3 | 41·9 | 3 below | 20 | − 8 | 26 | +12 | 300 | + 91 | 430 | − 90 |
| 3. ENGLAND, EAST | 61 | 28 | 52·0 | 35·5 | 43·1 | 3 below | 35 | − 4 | 18 | + 3 | 392 | +124 | 408 | −176 |
| 4. MIDLAND COUNTIES | 59 | 25 | 51·0 | 33·8 | 42·0 | 4 below | 25 | −17 | 23 | + 7 | 394 | +100 | 455 | −130 |
| 5. ENGLAND SOUTH | 63 | 30 | 52·3 | 36 7 | 44·1 | 4 below | 37 | − 5 | 15 | + 6 | 454 | +148 | 291 | −174 |
| Principal Grazing, &c., Districts. 6. SCOTLAND, WEST | 54 | 21 | 48·3 | 34·1 | 40·9 | 5 below | 18 | −15 | 30 | +17 | 247 | + 19 | 386 | − 48 |
| 7. ENGLAND, N.W. | 55 | 28 | 49·1 | 37·7 | 43·2 | 4 below | 26 | − 9 | 12 | + 1 | 340 | +110 | 303 | −133 |
| 8. ENGLAND, S.W. | 58 | 28 | 51·7 | 36·2 | 43·6 | 4 below | 36 | − 5 | 16 | + 9 | 462 | +130 | 240 | −109 |
| 9. IRELAND, NORTH | 56 | 27 | 48·9 | 36·3 | 42·3 | 4 below | 26 | −11 | 16 | + 6 | 336 | + 43 | 316 | − 59 |
| 10. IRELAND, SOUTH | 58 | 28 | 52·2 | 37·2 | 44·3 | 3 below | 36 | − 7 | 13 | + 6 | 493 | +100 | 244 | − 42 |
| —CHANNEL ISLANDS | 57 | 35 | 54·1 | 41·8 | 47·7 | 2 below | 41 | − 4 | 1 | 0 | 665 | +248 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| DISTRICTS. (See p. 92.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. 0. SCOTLAND, NORTH | 4 | 6 | 1 more | 75 | − 1 | 16·8 | + 1·1 | 44 | +10 | 44 | +10 | 306 | + 41 | 26 | + 4 |
| 1. SCOTLAND, EAST | 5 | 5 | 1 more | 69 | +10 | 10·7 | + 1·9 | 41 | + 9 | 41 | + 8 | 338 | + 38 | 30 | + 3 |
| 2. ENGLAND, N.E. | 3 | 2 | 2 less | 62 | + 5 | 6·7 | − 0·1 | 40 | + 9 | 41 | + 9 | 329 | + 35 | 29 | + 3 |
| 3. ENGLAND, EAST | 2 | 2 | 2 less | 59 | + 3 | 6·5 | 0·0 | 41 | + 1 | 42 | + 1 | 451 | + 90 | 37 | + 8 |
| 4. MIDLAND COUNTIES | 3 | 2 | 2 less | 58 | + 5 | 8·8 | + 1·3 | 33 | 0 | 34 | 0 | 373 | + 76 | 33 | + 6 |
| 5. ENGLAND, SOUTH | 3 | 6 | 2 more | 52 | 0 | 8·0 | − 0·2 | 43 | + 6 | 45 | + 6 | 440 | + 89 | 38 | + 8 |
| Principal Grazing, &c., Districts. 6. SCOTLAND, WEST | 3 | 7 | 2 more | 71 | + 8 | 16·8 | + 1·5 | 48 | +12 | 48 | +10 | 316 | + 16 | 28 | + 2 |
| 7. ENGLAND, N.W. | 2 | 1 | 3 less | 66 | + 8 | 11·3 | + 2·2 | 47 | +15 | 47 | +14 | 372 | + 70 | 32 | + 6 |
| 8. ENGLAND, S.W. | 4 | 7 | 2 more | 64 | + 6 | 15·2 | + 3·7 | 46 | + 4 | 48 | + 4 | 425 | + 40 | 36 | + 3 |
| 9. IRELAND, NORTH | 5 | 8 | 4 more | 79 | +12 | 12·1 | + 1·4 | 40 | + 7 | 41 | + 7 | 365 | + 69 | 32 | + 6 |
| 10. IRELAND, SOUTH | 4 | 12 | 6 more | 67 | + 6 | 15·3 | + 3·4 | 53 | +15 | 54 | +14 | 400 | + 46 | 34 | + 3 |
| — CHANNEL ISLANDS | 4 | 5 | 0 (average) | 63 | − 2 | 10·1 | + 0·1 | 59 | +15 | 60 | +15 | 472 | + 61 | 42 | + 6 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period varied greatly; considerable and rather frequent falls of rain, alternating with bright intervals, were experienced in the west and north generally, while in the east and south rain occurred less frequently and was at the same time slighter. At the end of the period the weather had become dry in all parts of the Kingdom.

*Temperature* was below the mean, the deficit ranging from 2° in the Channel Islands and 3° in Ireland S. and England E. and N.E., to 6° in Scotland E., and to as much as 8° in Scotland N. The highest of the maxima were registered on the 19th, and varied from 63° in England S., and 61° in England E., to 55° in England N.W., and 54° at the Scotch stations. The absolute minima, which occurred on the 17th over England, towards the end of the week in Scotland, and on irregular dates in Ireland, were very low for the time of year; in Scotland E. the thermometer fell to 17°, in Scotland N. and W. to 20° or 21°, and in the Midland Counties to 25°, while elsewhere the minima ranged from 27° in England N.E. and Ireland N., to 30° in England S., and to 35° in the Channel Islands.

*Rainfall* was more than the mean in Scotland, Ireland, and the south and south-west of England, and just equal to the normal in the Channel Islands, but less elsewhere. In the Irish districts the fall was just twice as much as the mean value.

*Bright Sunshine* exceeded the mean in nearly all districts. The percentage of the possible duration ranged from 60 in the Channel Islands, and 54 in Ireland S., to 41 in Ireland N. and the north-east of Great Britain, and to 34 in the Midland Counties.

*Barometer and Wind.*—During the earlier days of the week a depression was moving slowly away northwards over the North Sea and Scandinavia, the winds over our Islands being Northerly to North-Westerly. By Tuesday, however, an irregularly shaped anticyclone extended over England and Ireland from the Eastward, and the winds were very light and variable. By Wednesday this system had receded southwards, and the centre of a well-defined depression passed quickly East-North-Eastwards over Scotland to Norway, causing freshening Westerly and South-Westerly winds in the south and west, and Easterly winds in the extreme north. The anticyclone in the south continued to give way, and during Friday a small depression travelled East-South-Eastwards over the south-west of England and the Channel to France. A slight Northerly gale was felt in the rear of this disturbance at the mouth of the Channel. At the end of the week an anticyclone was passing over our Islands from the Atlantic, but the wind had already backed towards South in the west of Ireland with a falling barometer.

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613 | 70 4 | 99.

# II.—DATA from which the SUMMARY on page 91 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 44 | 21 | 40·7 | 27·7 | 33·9 | − 8·0 | 0 | 57 | 6 | 0·51 | + 0·07 | * | * | * | * |
| | Stornoway | 47 | 27 | 43·3 | 30·6 | 36·7 | − 6·9 | 4 | 39 | 6 | 0·79 | + 0·24 | 51·7 | +14·9 | 51 | +14 |
| | Wick | 54 | 26 | 44·3 | 29·3 | 36·4 | − 7·2 | 6 | 43 | 5 | 0·38 | − 0·01 | * | * | * | * |
| | Lairg | 53 | 20 | 46·9 | 25·4 | 35·6 | − 7·8 | 14 | 58 | 4 | 0·39 | − 0·14 | * | * | * | * |
| | Glencarron | 46 | 22 | 43·4 | 27·3 | 35·0 | − 8·5 | 4 | 50 | 6 | 0·83 | − 0·07 | * | * | * | * |
| | Fort Augustus | 49 | 22 | 45·8 | 28·4 | 36·7 | − 8·5 | 11 | 47 | 1 | 0·74 | + 0·26 | 37·8 | +10·9 | 37 | +10 |
| | Fort William | 49 | 26 | 46·2 | 31·9 | 38·7 | − 7·0 | 11 | 36 | 2 | 0·87 | + 0·08 | 38·7 | + 5·2 | 38 | + 4 |
| 1. SCOTLAND E. | Nairn | 48 | 23 | 45·7 | 29·4 | 37·2 | − 7·6 | 10 | 44 | 5 | 1·05 | + 0·76 | * | * | * | * |
| | Aberdeen | 46 | 28 | 43·9 | 32·1 | 37·7 | − 6·3 | 5 | 34 | 6 | 0·35 | − 0·10 | 44·8 | + 8·9 | 44 | + 8 |
| | Braemar | 44 | 17 | 41·6 | 26·3 | 33·6 | − 7·7 | 0 | 59 | 5 | 0·28 | − 0·24 | 41·5† | +10·0† | 41† | + 9† |
| | Ochtertyre | 52 | 25 | 50·4 | 30·4 | 39·9 | − 5·0 | 24 | 43 | 2 | 0·72 | + 0·23 | * | * | * | * |
| | Leith | 54 | 30 | 50·0 | 33·1 | 41·1 | − 4·5 | 22 | 34 | 4 | 0·40 | + 0·08 | * | * | * | * |
| | Marchmont | 49 | 27 | 46·7 | 32·3 | 39·2 | − 4·5 | 13 | 35 | 5 | 0·41 | − 0·09 | 37·8 | + 5·3 | 38 | + 4 |
| 2. ENGLAND, N.E. | Alnwick Castle | 52 | 28 | 47·3 | 33·8 | 40·2 | − 3·1 | 15 | 30 | 3 | 0·32 | − 0·12 | * | * | * | * |
| | Durham | 57 | 27 | 49·8 | 33·6 | 41·3 | − 3·0 | 22 | 32 | 4 | 0·16 | − 0·25 | 40·9 | +12·2 | 41 | +12 |
| | Shields | 56 | 29 | 47·4 | 34·6 | 40·7 | − 3·3 | 15 | 28 | 5 | 0·29 | − 0·09 | * | * | * | * |
| | Scarborough | 56 | 30 | 50·3 | 35·5 | 42·5 | − 2·3 | 31 | 18 | 2 | 0·07 | − 0·33 | 48·2 | ? | 49 | ? |
| | York | 56 | 29 | 50·3 | 35·4 | 42·5 | − 3·7 | 31 | 18 | 2 | 0·09 | − 0·28 | ? | ? | ? | ? |
| | Spurn Head | 57 | 35 | 49·7 | 38·7 | 43·9 | − 0·9 | 27 | 9 | 2 | 0·14 | − 0·15 | * | * | * | * |
| 3. ENGLAND, E. | Hillington | 59 | 28 | 52·1 | 33·4 | 42·3 | − 4·1 | 38 | 24 | 2 | 0·06 | − 0·32 | 36·3 | + 0·7 | 37 | 0 |
| | Yarmouth | 57 | 34 | 49·6 | 38·3 | 43·7 | − 1·3 | 27 | 10 | 2 | 0·06 | − 0·29 | * | * | * | * |
| | Geldeston | 61 | 33 | 53·1 | 35·9 | 44·1 | − 1·8 | 40 | 17 | 2 | 0·09 | − 0·24 | 39·3 | + 0·7 | 40 | 0 |
| | Cambridge | 61 | 29 | 54·0 | 34·3 | 43·7 | − 3·8 | 22 | 44 | 2 | 0·09 | − 0·26 | 38·2 | + 1·4 | 39 | + 1 |
| | Felixstowe | 54 | 34 | | 37·7 | | | | | 2 | 0·29 | ? | 42·9 | ? | 44 | ? |
| | Rothamsted | 58 | 28 | 51·1 | 33·3 | 41·8 | − 4·4 | 25 | 34 | 4 | 0·64 | + 0·17 | 39·5 | + 4·7 | 40 | + 4 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 58 | 28 | 52·7 | 33·9 | 42·9 | − 3·8 | 40 | 23 | 2 | 0·03 | − 0·31 | * | * | * | * |
| | Loughborough | 59 | 25 | 51·9 | 33·4 | 42·2 | − 5·1 | 38 | 24 | 3 | 0·14 | − 0·23 | * | * | * | * |
| | Stamford (Duddington) | 58 | 27 | 51·9 | 33·4 | 42·2 | − 4·9 | 38 | 24 | 3 | 0·09 | − 0·30 | * | * | * | * |
| | Cheadle | 55 | 29 | 48·8 | 34·5 | 41·3 | − 3·8 | 19 | 29 | 1 | 0·03 | − 0·40 | * | * | * | * |
| | Shirley (near Solihull) | 57 | 27 | 49·9 | 33·4 | 41·3 | − 4·9 | 22 | 33 | 4 | 0·22 | ? | * | * | * | * |
| | Churchstoke | 56 | 27 | 51·0 | 33·6 | 41·9 | − 3·0 | 25 | 33 | 2 | 0·23 | − 0·17 | 35·9 | + 1·8 | 37 | + 2 |
| | Hereford | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 55 | 27 | 50·3 | 32·0 | 40·7 | − 5·0 | 23 | 38 | 3 | 0·39 | − 0·06 | 36·5 | + 0·5 | 37 | 0 |
| | Oxford | 57 | 30 | 51·1 | 36·3 | 43·3 | − 4·3 | 33 | 16 | 4 | 0·43 | + 0·06 | 37·2 | + 2·0 | 38 | + 1 |
| 5. ENGLAND, S. | London | 63 | 32 | 53·9 | 35·9 | 44·5 | − 4·1 | 43 | 17 | 3 | 0·47 | + 0·08 | 28·5† | − 1·5† | 29† | − 2† |
| | Cranley | 60 | 30 | 53·3 | 33·5 | 42·9 | − 4·6 | 42 | 24 | 4 | 0·85 | ? | * | * | * | * |
| | Dungeness | 57 | 32 | 51·4 | 37·3 | 44·0 | − 2·9 | 34 | 13 | 3 | 0·62 | + 0·27 | * | * | * | * |
| | Hastings (St. Leonards) | 56 | 35 | 50·7 | 38·5 | 44·3 | − 3·5 | 31 | 10 | 4 | 0·68 | + 0·28 | 51·2 | +10·2 | 53 | +10 |
| | Southampton | 62 | 33 | 55·0 | 35·8 | 44·9 | − 3·9 | 46 | 17 | 3 | 0·66 | + 0·22 | 44·0 | + 4·2 | 45 | + 3 |
| | Hurst Castle | 55 | 35 | 51·7 | 39·9 | 45·5 | − 2·3 | 33 | 6 | 4 | 0·52 | + 0·16 | * | * | * | * |
| | Shaftesbury | 57 | 33 | 50·0 | 35·9 | 42·6 | − 3·9 | 30 | 17 | 3 | 0·71 | + 0·11 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 50 | 28 | 47·5 | 33·5 | 40·2 | − 6·1 | 15 | 32 | 4 | 1·35 | + 0·55 | * | * | * | * |
| | Glasgow | 50 | 30 | 46·9 | 34·2 | 40·3 | − 5·1 | 14 | 29 | 3 | 0·92 | + 0·50 | 34·4 | + 4·4 | 34 | + 3 |
| | Glenlee | 51 | 21 | 48·5 | 32·4 | 40·1 | − 4·8 | 18 | 36 | 3 | 0·56 | − 0·01 | * | * | * | * |
| | Douglas (Isle of Man) | 54 | 30 | 50·1 | 36·2 | 42·8 | − 3·1 | 30 | 16 | 2 | 0·11 | − 0·38 | 60·7 | +18·7 | 61 | +17 |
| 7. ENGLAND, N.W. | Stonyhurst | 52 | 30 | 48·0 | 36·0 | 41·7 | − 4·0 | 17 | 23 | 2 | 0·15 | − 0·35 | 37·6 | + 3·8 | 38 | + 3 |
| | Blackpool | 54 | 31 | 51·0 | 37·4 | 43·9 | − 2·7 | 33 | 13 | 2 | 0·14 | − 0·19 | 50·3 | +17·3 | 51 | +16 |
| | Manchester (Prestwich) | 55 | 28 | 49·6 | 34·8 | 41·8 | − 4·0 | 21 | 28 | 3 | 0·05 | − 0·35 | 22·6 | ? | 23 | ? |
| | Liverpool Obsy. (Bidston) | 55 | 33 | 48·9 | 39·1 | 43·8 | − 3·5 | 25 | 8 | 3 | 0·11 | − 0·21 | 40·6 | ? | 41 | ? |
| | Llandudno | 53 | 32 | 48·5 | 39·1 | 43·6 | − 4·1 | 23 | 8 | 2 | 0·18 | − 0·20 | 58·3 | +23·5 | 59 | +23 |
| | Holyhead | 51 | 36 | 48·6 | 40·0 | 44·1 | − 3·2 | 23 | 6 | 2 | 0·20 | − 0·19 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 56 | 28 | 53·1 | 32·3 | 42·2 | − 4·3 | 42 | 27 | 4 | 0·36 | − 0·18 | * | * | * | * |
| | Pembroke | 51 | 39 | 49·1 | 41·3 | 45·0 | − 1·8 | 24 | 2 | 3 | 0·70 | + 0·31 | 51·3 | + 8·4 | 52 | + 7 |
| | Clifton | 56 | 34 | 52·6 | 36·8 | 44·3 | − 2·4 | 38 | 15 | 4 | 0·91 | + 0·45 | * | * | * | * |
| | Arlington (N. Devon) | 55 | 30 | 51·1 | 34·0 | 42·1 | − 3·6 | 34 | 22 | 4 | 0·65 | + 0·08 | * | * | * | * |
| | Cullompton | 58 | 28 | 52·6 | 33·1 | 42·4 | − 5·8 | 40 | 25 | 4 | 0·82 | + 0·22 | 32·9 | − 3·7 | 34 | − 4 |
| | Falmouth | 55 | 36 | 52·8 | 39·3 | 45·7 | − 2·4 | 37 | 8 | 5 | 0·47 | − 0·21 | 55·6 | +13·0 | 57 | +12 |
| | Plymouth | 52 | 31 | 51·3 | 35·5 | 43·0 | − 5·9 | 34 | 18 | 3 | 1·16 | + 0·66 | 51·4 | +10·4 | 53 | +10 |
| | Prawle Point | 54 | 34 | 51·1 | 36·9 | 43·7 | − 3·2 | 33 | 14 | 4 | 0·74 | + 0·32 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 48 | 35 | 46·0 | 38·0 | 41·8 | − 4·5 | 11 | 15 | 6 | 0·96 | ? | * | * | * | * |
| | Londonderry | 56 | 31 | 50·3 | 35·2 | 42·4 | − 4·9 | 31 | 19 | 5 | 1·20 | + 0·75 | * | * | * | * |
| | Edenfel (Omagh) | 51 | 27 | 48·1 | 33·9 | 40·7 | − 4·5 | 17 | 31 | 5 | 0·57 | + 0·12 | * | * | * | * |
| | Belmullet | 53 | 34 | 48·6 | 37·9 | 43·0 | − 4·8 | 24 | 11 | 7 | 1·76 | + 1·26 | * | * | * | * |
| | Markree Castle | 55 | 28 | 50·6 | 33·6 | 41·7 | − 4·6 | 24 | 33 | 5 | 0·39 | − 0·08 | 36·3 | + 1·8 | 37 | + 1 |
| | Armagh | 53 | 28 | 50·3 | 34·6 | 42·1 | − 3·6 | 32 | 21 | 4 | 0·68 | + 0·18 | 44·5 | +11·5 | 45 | +11 |
| | Donaghadee | 54 | 38 | 48·6 | 40·7 | 44·5 | − 1·4 | 23 | 4 | 4 | 0·22 | − 0·18 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 58 | 35 | 52·2 | 39·1 | 45·3 | − 2·5 | 35 | 8 | 4 | 0·23 | − 0·22 | 55·6 | + 6·9 | 57 | +17 |
| | Parsonstown | 56 | 29 | 51·7 | 34·9 | 42·9 | − 3·8 | 36 | 20 | 4 | 0·49 | + 0·03 | 45·5 | + 9·5 | 46 | + 8 |
| | Kilkenny | 56 | 29 | 52·0 | 35·7 | 43·5 | − 4·0 | 37 | 18 | 3 | 0·44 | − 0·05 | * | * | * | * |
| | Roche's Point | 55 | 35 | 53·0 | 39·6 | 46·0 | − 2·3 | 38 | 7 | 4 | 1·83 | + 1·11 | * | * | * | * |
| | Valencia | 55 | 33 | 51·3 | 38·3 | 44·5 | − 4·3 | 33 | 10 | 5 | 2·35 | + 1·47 | 56·4 | +16·5 | 58 | +16 |
| | Killarney | 57 | 28 | 52·8 | 35·1 | 43·5 | − 4·2 | 39 | 19 | 5 | 1·06 | ? | * | * | * | * |
| | Foynes | 57 | 32 | 52·1 | 37·7 | 44·6 | − 2·9 | 36 | 12 | 5 | 1·91 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 56 | 39 | 53·7 | 43·0 | 48·1 | − 0·6 | 43 | 0 | 5 | 0·53 | + 0·05 | 53·5 | ? | 55 | ? |
| | Jersey | 57 | 35 | 54·4 | 40·6 | 47·2 | − 2·5 | 42 | 4 | 3 | 0·36 | − 0·06 | 63·3 | +17·8 | 65 | +17 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

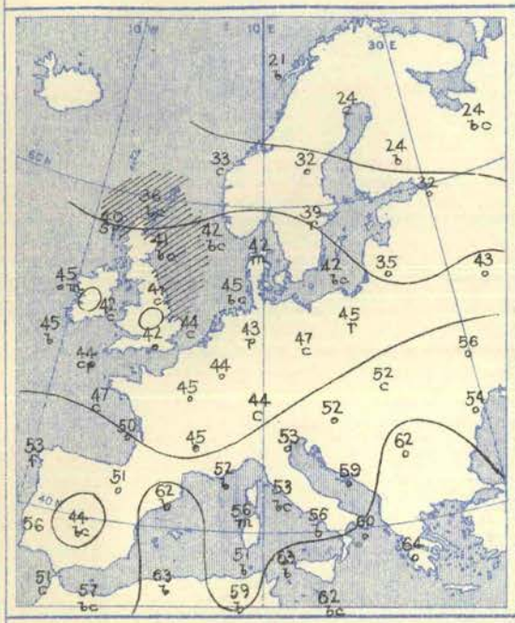
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 16th April.

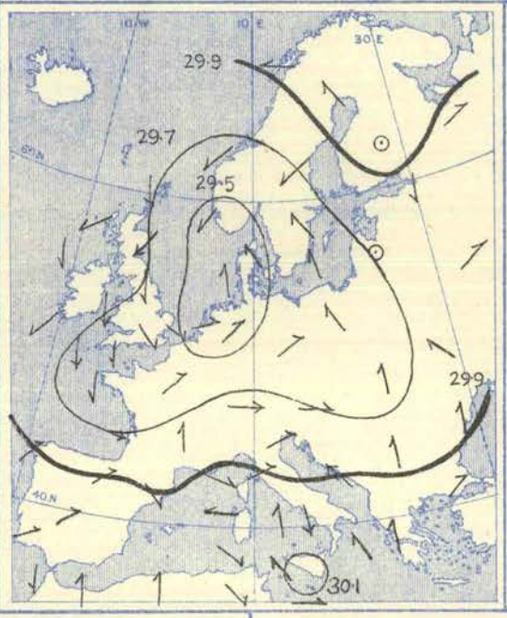
### Temperature and Weather.

8 a.m.

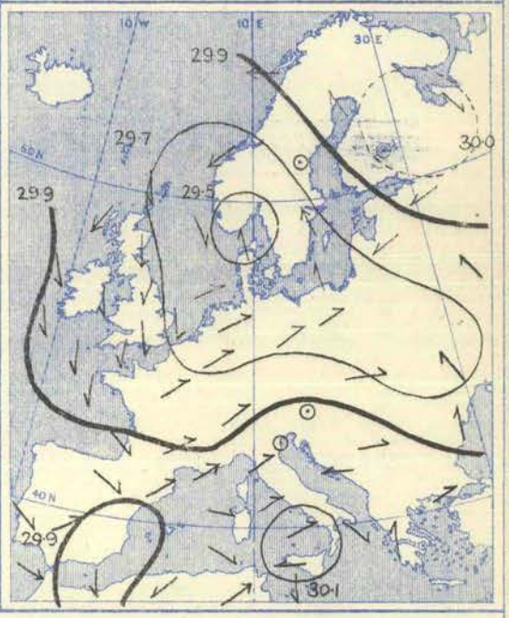


### Barometer and Wind.

8 a.m.




6 p.m.




*Weather* in morning cloudy and unsettled over England, France and the greater part of northern, eastern and central Europe, with rain in several places. Fine in Ireland, Scotland and the west of Norway, as well as over northern Russia and the whole of southern Europe. Showers falling during day in all the western countries, with snow, sleet, or hail in places; thunder heard at Paris.

*Temperature* changed little and irregularly. Morning readings highest, 64° at Athens, Patras and Constantinople, and 63° at Palermo and Algiers; above 55° at most of the Mediterranean and Adriatic stations. Lowest, 21° at Bodö, 24° at Archangel, Haparanda and Kuopio; below 40° over nearly the whole of Scandinavia and northern Russia, as well as in the central parts of England and Ireland. Daily maxima below 50° on all but our extreme southern coasts; thermometer exceeding 55° in many parts of France; exceeding 60° over southern Europe generally, and reaching 70° or more over southern Italy. Sharp frost occurring over Great Britain at night.

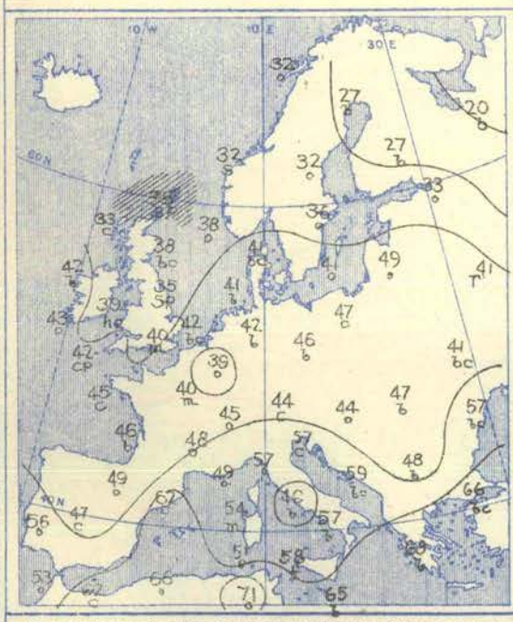
*Wind* Northerly in our Islands and strong in force on the north-east coasts of Scotland; moderate to fresh from the South-Westward or Westward over the Spanish Peninsula, France, northern Italy, Germany, and Austria; South-Easterly in Sweden; Easterly or North-Easterly in Norway. Southerly or South-Easterly over the southern parts of Russia and Italy. No important change occurring during day.

*Barometer* highest, 30·0 ins. and upwards over the Mediterranean and the extreme southern parts of Europe; 29·9 ins. and upwards over Finland and the north of Scandinavia. Lowest, 29·5 ins. and less in a depression over Denmark, the Netherlands, the extreme south of Norway and the eastern parts of the North Sea. Depression subsequently moving northwards; barometer rising in most parts of the United Kingdom.

## Monday, 17th April.

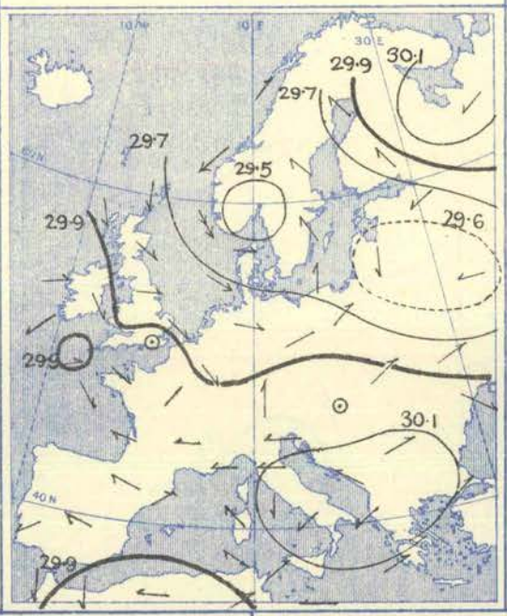
### Temperature and Weather.

8 a.m.

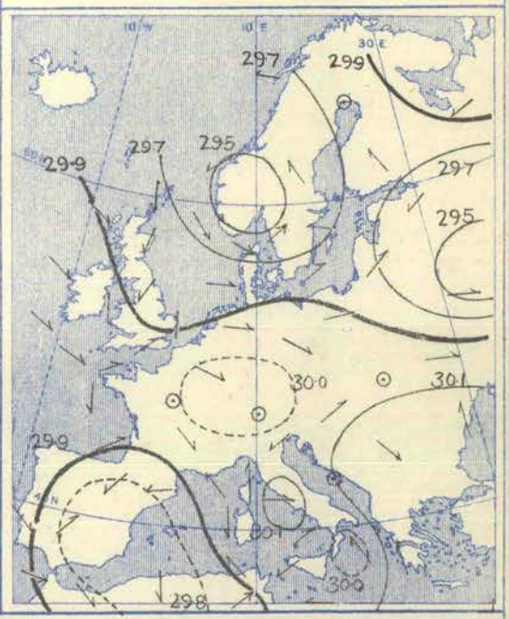


### Barometer and Wind.

8 a.m.




6 p.m.




*Weather* in morning fine in the east and south of England, but showery at many of our western and northern stations, with snow or hail in places. Fine in Italy and Austria, as well as in Denmark and the extreme northern parts of Sweden and Russia; dull in most other parts of the Continent, with rain in the north-east of France and snow at Christiansund. A little rain or snow falling during day in most parts of western, northern and central Europe; lunar halo seen at Belmullet.

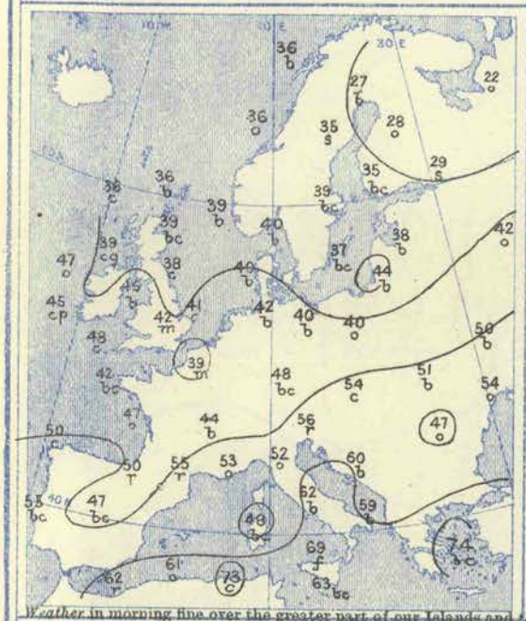
*Temperature* fallen in most countries, but risen over the Spanish Peninsula. Morning readings highest, 71° at La Calle, 67° at Athens, and 66° at Algiers and Constantinople; above 55° at most of the Mediterranean and Adriatic stations. Lowest, 20° at Archangel, 27° at Haparanda and Kuopio, and 30° at Ulcaborg; below 40° over Scandinavia and northern Russia generally, as well as in many parts of Great Britain. Daily maxima below 45° at several of our own northern stations and very little above 50° even in the south. Exceeding 65° in most parts of southern Europe, and reaching 70° or more at some of the Mediterranean stations. Sharp frost occurring over Great Britain at night.

*Wind* light to moderate from the Northward or North-Westward over the greater part of the United Kingdom; strong from the North-Westward on the eastern shores of the North Sea, with a gale at Skudesnaes. Light to moderate from the South-Westward in Germany Easterly or South-Easterly over Sweden and Finland; light from the Eastward or North-Eastward over the greater part of France and southern Europe. Subsequently shifting to the Southward or South-Westward over England; no important change occurring elsewhere.

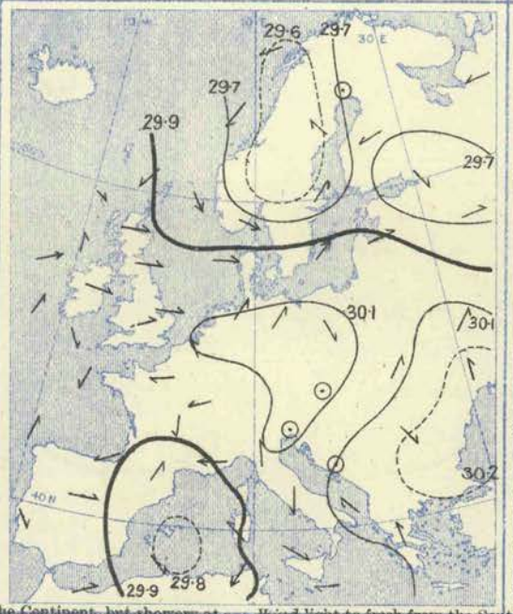
*Barometer* highest, 30·1 ins. and upwards over Italy, Austria and the Balkan Provinces, and also in the extreme north of Russia. Lowest, 29·5 ins. and less in a depression over the south of Scandinavia; 29·6 ins. and less in another disturbance over central Russia. New depression appearing later over Spain and Algeria; no important change occurring elsewhere.

## Tuesday, 18th April.

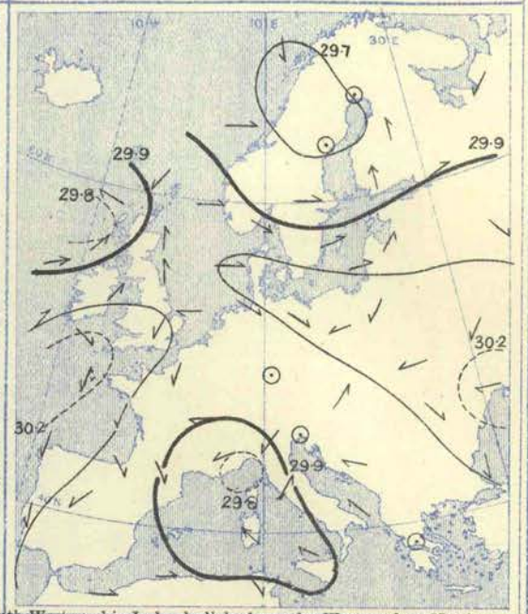
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning fine over the greater part of our Islands and the Continent, but showery at one or two of our south-western and southern stations; snow and hail reported at Nairn. Dull in many parts of France, Italy and Austria, with rain at Bilbao, Biarritz, Perpignan and Trieste; snow falling at Helsingfors and St. Petersburg, and also at Hernösand. Rain falling later over the whole of Ireland and Scotland, as well as in south Germany, northern Italy and the south and east of France; solar halo seen at Stornoway, and lunar halo at Spurn Head.

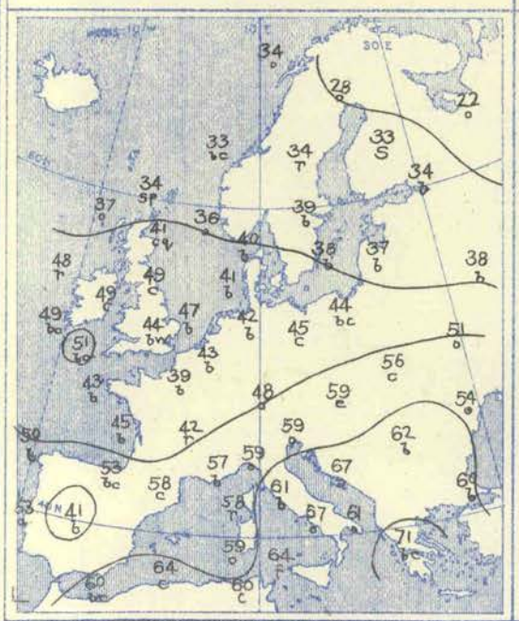
*Temperature* changed very irregularly. Morning readings highest, 74° at Athens, 73° at La Calle, 70° at Patras, and 69° at Palermo; above 55° at most of the Mediterranean, Adriatic, and Spanish coast stations. Lowest, 22° at Archangel, 27° at Haparanda, and 28° at Uleaborg and Kuopio; lowest in our Islands, 34° at Nairn. Rising during day to between 50° and 55° at most of our own central and southern stations; exceeding 70° in Italy and Austria, and reaching 86° at Cagliari and 90° at Palermo. Frost occurring over Great Britain at night.

*Wind* light to fresh from the South-Westward in Ireland; light from the Westward or North-Westward over the northern and eastern parts of Great Britain; strong from the same quarters on the eastern shores of the North Sea; South-Westerly over the Baltic and south of Sweden; Easterly or North-Easterly over the northern parts of Russia and Scandinavia. Light from the Northward or North-Eastward over the Channel, France and Italy; North-Westerly or Westerly over the Spanish Peninsula; variable in Germany and Austria. Subsequently backing to the Southward or South-Eastward in Scotland; no important change occurring elsewhere.

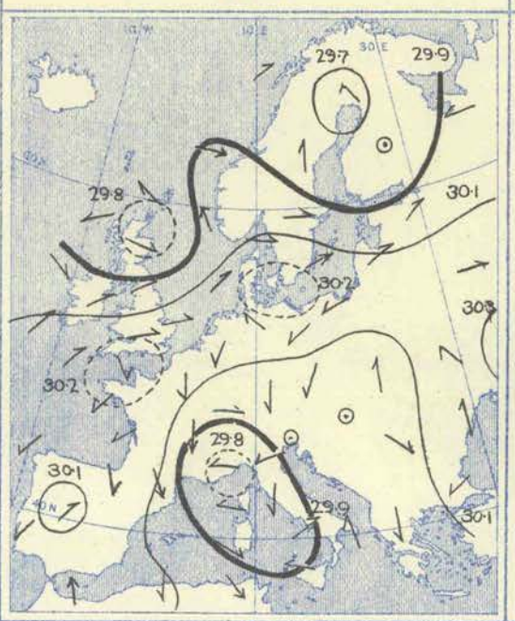
*Barometer* highest, 30·2 ins. and upwards over Turkey and the south of Russia; 30·0 ins. and upwards in an anticyclone covering the whole of eastern and central Europe, and extending over England and the east and south of Ireland. Lowest, 29·6 ins. and less in a large depression over Scandinavia; 29·7 ins. and less in another disturbance over central Russia; 29·8 ins. and less in a third system off the Algerian coasts. Depressions subsequently moving north-eastwards, but new disturbance appearing off our own extreme north-west coasts.

## Wednesday, 19th April.

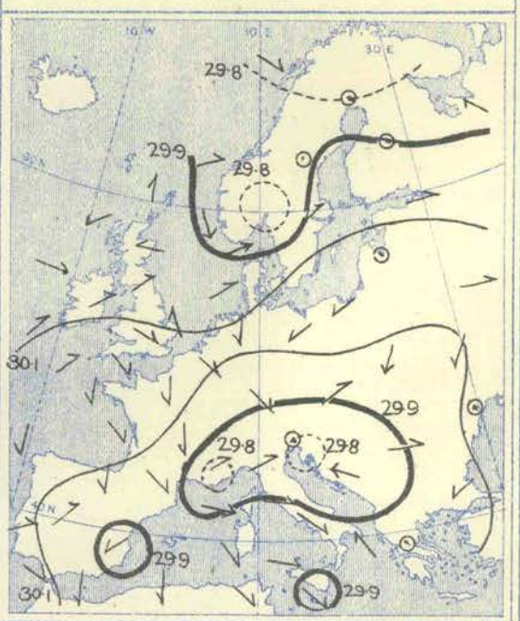
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning fine over England, the south of Ireland, and the western parts of the Continent generally, dull in Scotland and the north of Ireland, with rain at Leith and Belmullet, and sleet at Wick and Nairn. Dull over Italy, south Germany and the east and south of France, with rain in several places; rain falling also at Hernösand, and snow at Kuopio and Helsingfors. Heavy rain occurring during day over northern Italy and the east and south of France, and smaller amounts in Ireland and Scotland.

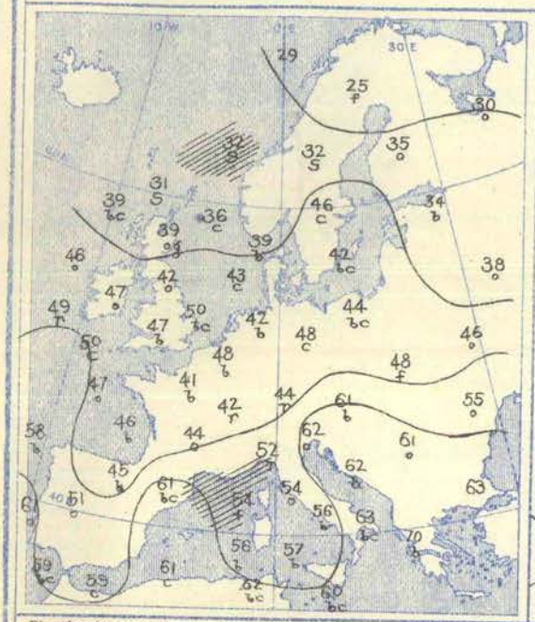
*Temperature* risen in most places. Morning readings highest, 71° at Athens and Patras, 67° at Lesina and Naples, and 64° at Palermo and Algiers; above 55° at most of the Mediterranean and Adriatic stations. Lowest, 22° at Archangel, 28° at Haparanda, and 33° at Kuopio and Christiansund; below 40° over northern Europe generally, and also in the north of Scotland. Rising during day to between 55° and 60° at most of the English and French stations, and to 63° in London; exceeding 70° in many parts of southern Europe and reaching 82° at Hermanstadt.

*Wind* Westerly or South-Westerly over north-western and northern Europe generally; light or moderate in force in most places, but strong at some of the Scandinavian stations. Easterly or North-Easterly in the extreme north of Scotland. Light from the Northward or North-Eastward over Germany and the greater part of France, but strong from the North-Westward in the extreme south of France; variable over Austria, Italy and the Spanish Peninsula. No important change occurring during day.

*Barometer* highest, 30·3 ins. and upwards over the south of Russia; 30·2 ins. and upwards over Denmark and north Germany, and also over the south of England and the north of France. Lowest, 29·7 ins. and less in a depression over Lapland; 29·8 ins. and less in two other disturbances—one lying off the north-east of Scotland and the other over the Gulf of Genoa. Scotch depression subsequently travelling eastwards to the south of Norway, and barometer rising rather decidedly on our own northern coasts.

## Thursday, 20th April.

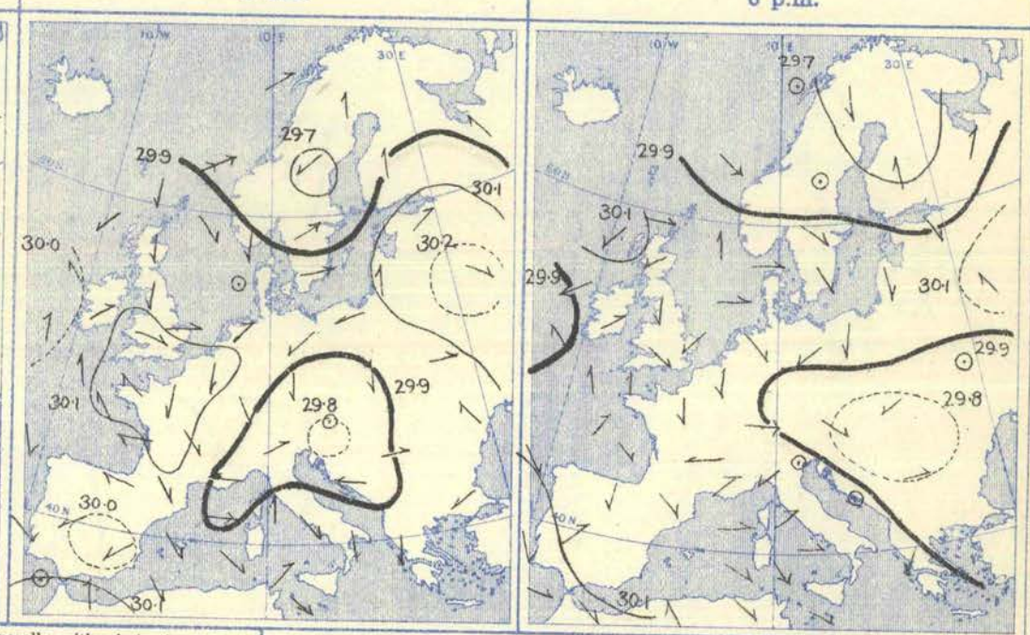
### Temperature and Weather. 8 a.m.



*Weather* in morning cloudy or dull over the United Kingdom generally, with rain in the south of Ireland and at Leith, and snow at Sumburgh Head. Fine in the north of Scotland and the extreme south-east of England, as well as over the greater part of the Continent; dull over south Germany and northern Italy, with rain at Munich and Leghorn; snow falling at Hernösand and Christiansund. Rain falling later in west parts of our Islands and their neighbourhood—heavily in the south of Ireland. Thunderstorm occurring at Aumale.

*Temperature* fallen in most places. Morning readings highest, 70° at Patras, 66° at Athens, and 62° at Trieste, Lesina and La Calle; above 55° at most of the Mediterranean, Adriatic and Spanish coast stations. Lowest, 25° at Haparanda, 29° at Bodö and Uleaborg, and 30° at Archangel; below 40° over northern Europe generally, and also in the north of Scotland. Rising during day to between 55° and 60° in most other parts of England, and to 62° in London; exceeding 65° over southern Europe generally, and reaching 72° at Palermo and 73° at Malta.

### Barometer and Wind. 8 a.m. and 6 p.m.

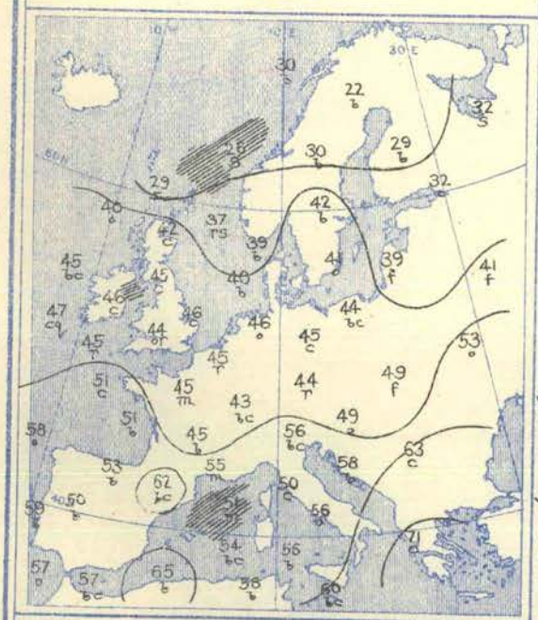


*Wind* light from the Eastward over Spain and the west of France, and from the Southward or South-Eastward on our own western coasts. Northerly or North-Easterly in Scotland; Westerly in the east of England; variable over our south-eastern counties. Westerly (South-Westerly to North-Westerly) over the greater part of Scandinavia, with a gale at Christiansund; Southerly over Finland and the north of Sweden. Calm or variable in Austria; Southerly or South-Easterly in Italy; North-Westerly in the extreme south of France. No important change occurring during day.

*Barometer* highest, 30·2 ins. and upwards in an anticyclone over central Russia; 30·1 ins. and upwards in another system lying over the greater part of England and France. Lowest, 29·7 ins. and less in a depression over the southern part of the Gulf of Bothnia; 29·9 ins. and less in a large shallow area lying over Austria and northern Italy; 30·0 ins. and less in another system off the west of Ireland. Irish depression subsequently advancing eastwards, and barometer falling on our western coasts generally.

## Friday, 21st April.

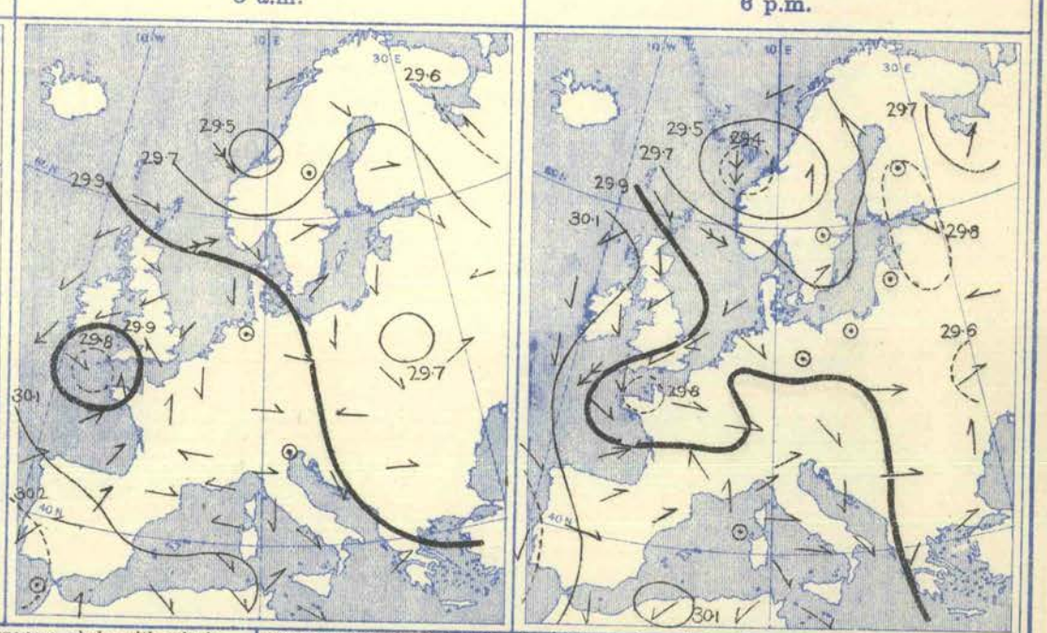
### Temperature and Weather. 8 a.m.



*Weather* in morning cloudy and unsettled over north-western Europe as a whole, with rain in the south of England and the north of France, and snow or sleet in the Shetlands and west of Norway. Fine over southern Europe, as well as in Finland, Sweden and Denmark; rainy in some parts of Austria and south Germany. Improving later in all but the extreme southern and south-eastern parts of our Islands, but rain falling in France, Germany and the Netherlands.

*Temperature* fallen in most countries, but risen in France and also in the central and southern parts of Russia. Morning readings highest, 71° at Athens, 65° at Algiers, and 62° at Barcelona; above 55° at most of the Mediterranean, Adriatic, and Spanish coast stations. Lowest, 22° at Haparanda, 26° at Christiansund, and 27° at Uleaborg; below 40° over northern Europe generally, and also in the north of Scotland. Daily maxima below 50° at most of our own northern, eastern and south-eastern stations; thermometer exceeding 60° over southern Europe generally, and reaching 74° at Madrid.

### Barometer and Wind. 8 a.m. and 6 p.m.



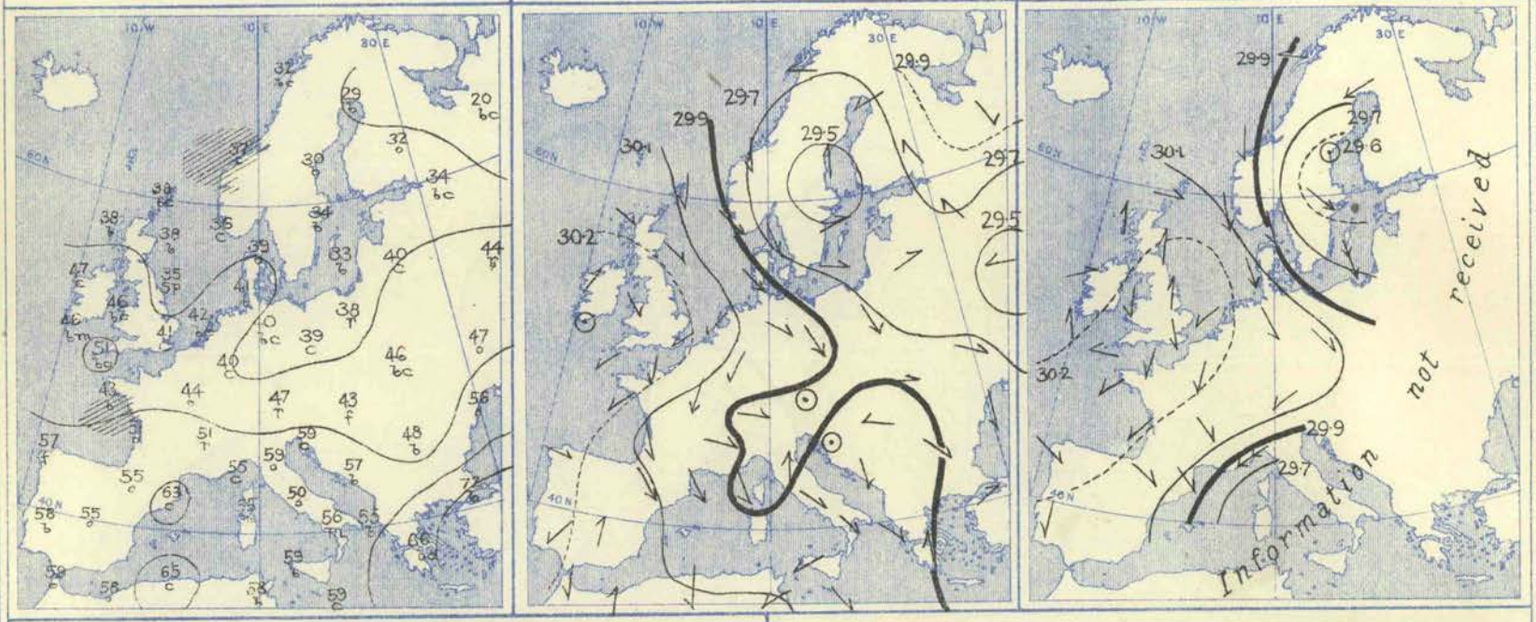
*Wind* light from the Eastward or North-Eastward over the greater part of England; moderate to strong from the North-Eastward or Northward in Ireland, but Southerly or South-Westerly in the west and north of France. Light to moderate from the North-Westward in the north-east of Scotland, and also over the greater part of Denmark, Germany, Austria and Italy. Strong to a gale from the Westward or North-Westward in the west of Norway. South-Westerly in the south of Sweden. Light from the Eastward or North-Eastward over Spain and the extreme south of France. Subsequently increasing to a gale from the Northward at the mouth of the Channel.

*Barometer* highest, 30·2 ins. and upwards in an anticyclone lying off the Portuguese coasts; 30·1 ins. and upwards in another system appearing off the west of Ireland. Lowest, 29·5 ins. and less in a depression over the west of Norway; 29·8 ins. and less in a small depression over the south-west of England, and also in a large shallow area covering the greater part of south-eastern Europe. Depression over the south-west of England subsequently moving slowly east-south-eastwards across the Channel.

## Saturday, 22nd April.

**Temperature and Weather.** — 8 a.m.

**Barometer and Wind.** — 8 a.m. | 6 p.m.




*Weather* in morning fine over north-western and northern Europe as a whole, but dull in the north of England, with sleet showers at Shields. Cloudy or dull in most of the central and southern countries, with rain in south Germany, as well as at Neufahwasser and Moscow; fine in Austria and the south of Russia. Rain falling later in Ireland—rather heavily in the south; snow reported at some of the Scandinavian stations.

*Temperature* fallen in most of the north-western and northern countries, but risen elsewhere. Morning readings highest, 72° at Constantinople, 66° at Patras, 65° at Algiers, and 64° at Athens; above 55° at most of the Mediterranean, Adriatic, and Spanish coast stations. Lowest, 20° at Moscow, 27° at Karlstad, 29° at Haparanda, and 30° at Hernösand; lowest in our Islands, 35° at Shields. Daily maxima below 45° at several of our own northern stations, and below 50° in many other parts of the United Kingdom; thermometer exceeding 60° in the west and south of France, and reaching 70° at Nice, and 75° at Lisbon.

*Wind* light to moderate from the North-Westward in the northern parts of Great Britain; fresh to strong from the same quarter over the eastern shores of the North Sea, and over Germany; Westerly in the south of Sweden; South-Easterly in Finland. North-Easterly over the south of our Islands, the Netherlands, and the north of France; North-Westerly over Italy and the southern parts of our Islands; variable over the Spanish Peninsula; calm in Austria. Subsequently backing to the Southward in Ireland and Scotland; North-Westerly gale springing up in the south of Sweden.

*Barometer* highest, 30·2 ins. and upwards in an anticyclone stretching from the Atlantic over our Islands and the western parts of the Spanish Peninsula. Lowest, 29·5 ins. and less in two depressions—one lying over Sweden, and the other over central Russia. Swedish depression subsequently moving eastwards; new disturbance approaching our own western coasts in evening.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇉ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During the early part of the week the cyclonic disturbance previously noticed off the east of England moved northwards to Scandinavia, where it gradually filled up, another depression being, however, formed in the meantime over Russia. Over western and central Europe the weather was affected for a time by an anticyclone of irregular form, while in the southern countries it was influenced by a complex depression which appeared over the Mediterranean, heavy rain being experienced over northern Italy, and the south of France on the 18th.

Over our Islands and the neighbouring countries a decided change now occurred, owing firstly to the passage eastwards of a shallow depression across Scotland and the North Sea, and secondly to the movement in an east-south-easterly direction of another shallow system over the English Channel and France. The progress of each disturbance was attended by heavy rains either in the northern or southern parts of our Islands, but with the exception of a slight Northerly gale which sprang up at the mouth of the English Channel on the 21st, the depressions occasioned no serious increase of wind. On the 22nd the small depression in the south was dispersing over France, and a large anticyclone was moving eastwards across our Islands, the wind in its rear backing to the Southward on our western coasts.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 92.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 48·6 | ? | 48 | ? | WATERGATE (Emsworth) | 40·5 | ? | 42 | ? |
| STRATHPEFFER SPA | 44·5 | +10·1 | 44 | + 9 | BRIGHTON | 48·9 | + 7·7 | 50 | + 7 |
| EDINBURGH | | | | | BOGNOR | 51·0* | ? | 53* | ? |
| MORPETH | 42·2 | ? | 43 | ? | EASTBOURNE | 51·9 | +11·4 | 54 | +12 |
| NEWCASTLE-ON-TYNE | 29·8 | ? | 30 | ? | VENTNOR HOSPITAL | 51·7 | ? | 53 | ? |
| OSWALDKIRK (Yorkshire) | | | | | SOUTHPORT | 50·7 | ? | 51 | ? |
| HOLLESLEY BAY | 47·6 | ? | 49 | ? | COLWYN BAY | | | | |
| SHEFFIELD | 32·0 | ? | 33 | ? | ABERDOVEY | 60·1* | ? | 61* | ? |
| WORKSOP | 28·4 | − 1·6 | 29 | − 2 | TENBY | 44·9 | − 0·6 | 46 | − 2 |
| THURCASTON (Leicestershire) | 30·1 | − 0·9 | 31 | − 1 | NEWQUAY | | | | |
| PLUMSTEAD COMMON | 23·1 | ? | 24 | ? | TORQUAY | 42·1* | − 0·1 | 43* | − 1 |
| MARGATE | 46·7 | +10·9 | 48 | +11 | GUERNSEY | 59·5* | +12·9 | 61* | +13 |
| WESTBOURNE (Emsworth) | 40·1* | − 2·5 | 41* | − 4 | | | | | |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD. LITH. 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 17.] *Third Series.* WEEK ENDING SATURDAY, APRIL 29TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 98.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH - | 62 | 32 | 52·2 | 39·6 | 45·6 | 1 above | 35 | + 6 | 7 | - 8 | 197 | + 8 | 557 | - 28 |
| | 1. SCOTLAND, EAST - | 65 | 28 | 55·2 | 39·8 | 47·1 | 2 above | 45 | + 9 | 6 | - 9 | 252 | + 3 | 606 | - 13 |
| | 2. ENGLAND, N.E. - | 63 | 29 | 56·2 | 40·9 | 48·2 | 3 above | 48 | +15 | 3 | - 7 | 348 | +106 | 433 | - 97 |
| | 3. ENGLAND, EAST - | 62 | 39 | 55·5 | 43·5 | 49·2 | 2 above | 50 | + 3 | 0 | -11 | 443* | +128 | 408 | -187 |
| | 4. MIDLAND COUNTIES | 63 | 29 | 55·9 | 42·3 | 48·8 | 1 above | 48 | 0 | 0 | -12 | 442 | +100 | 455 | -142 |
| | 5. ENGLAND SOUTH - | 63 | 38 | 55·1 | 44·9 | 49·8 | 1 above | 55 | + 4 | 0 | - 5 | 509 | +152 | 291 | -179 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST - | 60 | 31 | 54·8 | 41·3 | 47·7 | 1 above | 43 | + 4 | 2 | - 7 | 290 | + 23 | 388 | - 55 |
| | 7. ENGLAND, N.W. - | 59 | 30 | 54·8 | 42·9 | 48·6 | 1 above | 46 | + 5 | 0 | - 7 | 386 | +115 | 303 | -140 |
| | 8. ENGLAND, S.W. - | 61 | 30 | 54·1 | 44·8 | 49·2 | 1 above | 50 | + 3 | 0 | - 5 | 512 | +133 | 240 | -114 |
| | 9. IRELAND, NORTH - | 63 | 28 | 54·6 | 42·7 | 48·4 | 1 above | 45 | + 2 | 0 | - 7 | 381 | + 45 | 316 | - 66 |
| | 10. IRELAND, SOUTH - | 64 | 33 | 57·3 | 45·6 | 51·2 | 2 above | 64 | +16 | 0 | - 5 | 557 | +116 | 244 | - 47 |
| | —CHANNEL ISLANDS- | 62 | 44 | 55·6 | 47·6 | 51·4 | 1 above | 66 | +14 | 0 | 0 | 731 | +262 | 81 | - 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 98.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH - | 6 | 12 | 6 more | 81 | + 1 | 18·0 | + 1·8 | 21 | -16 | 20 | -17 | 327 | + 25 | 25 | + 2 |
| | 1. SCOTLAND, EAST - | 6 | 9 | 5 more | 75 | +12 | 11·6 | + 2·4 | 28 | - 6 | 27 | - 7 | 365* | + 31 | 30 | + 3 |
| | 2. ENGLAND, N.E. - - | 4 | 5 | 2 more | 66 | + 5 | 7·2 | + 0·1 | 15 | -15 | 15 | -14 | 341* | + 11 | 28 | + 2 |
| | 3. ENGLAND, EAST - | 5 | 6 | 2 more | 64 | + 4 | 7·1 | + 0·2 | 15 | -24 | 15 | -25 | 466 | + 66 | 35 | + 5 |
| | 4. MIDLAND COUNTIES | 5 | 5 | 1 more | 63 | + 6 | 9·3 | + 1·5 | 18 | -18 | 18 | -18 | 391 | + 59 | 32 | + 5 |
| | 5. ENGLAND, SOUTH - | 5 | 8 | 4 more | 57 | + 1 | 8·8 | + 0·3 | 25 | -16 | 25 | -16 | 465 | + 73 | 37 | + 6 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST - | 6 | 12 | 7 more | 77 | + 9 | 18·0 | + 2·1 | 18 | -20 | 18 | -21 | 334 | - 4 | 27 | 0 |
| | 7. ENGLAND, N.W. - | 6 | 9 | 6 more | 72 | +10 | 12·2 | + 2·7 | 17 | -16 | 17 | -18 | 389 | + 53 | 31 | + 4 |
| | 8. ENGLAND, S.W. - - | 6 | 9 | 4 more | 70 | + 7 | 16·1 | + 4·1 | 26 | -18 | 26 | -18 | 452* | + 23 | 36 | + 2 |
| | 9. IRELAND, NORTH - | 6 | 10 | 6 more | 85 | +13 | 13·1 | + 2·0 | 14 | -21 | 14 | -21 | 379 | + 48 | 30 | + 4 |
| | 10. IRELAND, SOUTH - | 5 | 8 | 2 more | 72 | + 6 | 16·1 | + 3·6 | 22 | -18 | 21 | -19 | 422 | + 28 | 34 | + 3 |
| | — CHANNEL ISLANDS- | 5 | 8 | 4 more | 68 | - 1 | 10·9 | + 0·5 | 32 | -12 | 32 | -13 | 504 | + 49 | 41 | + 4 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was very changeable, especially in the west and north, where rain fell almost every day. Thunderstorms occurred over the north of England on the 29th, and in isolated parts of the Kingdom on several other occasions.

*Temperature* was above the mean, the excess amounting in most districts to only 1° or 2°, but in England N.E. to as much as 3°. The highest readings occurred at varying times, but mostly during the latter half of the week ; in all districts excepting England N.W. the thermometer rose slightly above 60°, in Ireland S. to 64°, and in Scotland E. to 65°. The lowest readings also occurred on irregular dates—at the majority of stations on the 23rd, but at some on the 26th or 27th. Frost occurred in most of the northern and central districts, and in Scotland E. and Ireland N. the sheltered thermometer fell to 28°.

*Rainfall* was in most districts considerably in excess of the mean. In Scotland, the north of Ireland, and the north-west of England the total amount was more than twice as much as the normal.

*Bright Sunshine* was much below the mean. The percentage of the possible duration ranged from 32 in the Channel Islands, and 27 in Scotland E., to 15 in England N.E. and E., and to 14 in Ireland N.

*Barometer and Wind.*—At the commencement of the week a depression moved northwards along our extreme western coasts, the prevailing winds being Southerly, and strong in force in the west. Later on two disturbances advanced in an east-south-easterly direction across the country, the first of these on the 25th, and the second on the 29th. During their passage the wind over Ireland and England alternately backed to the South-Westward, and then veered round to North-West or North, its force being, as a rule, only moderate. In Scotland the winds were more variable, but on the 29th they blew very strongly for a time from the North-Eastward.

207 | 90 Wy. & S., Ltd.
613 | 70 4 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 97 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head Ⓢ | 55 | 35 | 48·0 | 39·0 | 43·3 | + 0·5 | 22 | 8 | 6 | 0·40 | 0·00 | * | * | * | * |
| | Stornoway Ⓢ | 58 | 33 | 50·3 | 40·1 | 45·0 | + 0·4 | 29 | 5 | 5 | 1·45 | + 0·93 | 19·1 | −19·5 | 18 | −20 |
| | Wick Ⓢ | 56 | 35 | 51·9 | 39·9 | 45·6 | + 1·0 | 34 | 6 | 6 | 0·42 | + 0·02 | * | * | * | * |
| | Lairg Ⓢ | 62 | 32 | 53·6 | 37·2 | 45·0 | + 0·5 | 41 | 13 | 4 | 0·75 | + 0·25 | * | * | * | * |
| | Glencarron Ⓢ | 59 | 34 | 53·6 | 38·4 | 45·6 | + 0·9 | 40 | 10 | 6 | 2·96 | + 2·06 | * | * | * | * |
| | Fort Augustus Ⓢ | 59 | 36 | 54·8 | 40·4 | 47·3 | + 0·6 | 44 | 4 | 6 | 0·84 | + 0·34 | 18·7 | − 8·7 | 18 | −10 |
| | Fort William Ⓢ | 62 | 37 | 53·4 | 42·2 | 47·5 | + 0·5 | 39 | 0 | 6 | 1·63 | + 0·83 | 16·6 | −18.7 | 16 | −19 |
| 1. SCOTLAND E. | Nairn Ⓢ | 58 | 34 | 54·1 | 40·9 | 47·2 | + 1·2 | 41 | 3 | 5 | 1·07 | + 0·77 | * | * | * | * |
| | Aberdeen Ⓢ | 60 | 35 | 53·0 | 40·4 | 46·4 | + 1·5 | 38 | 4 | 6 | 0·86 | + 0·43 | 34·0 | − 3·6 | 33 | − 3 |
| | Braemar Ⓢ | 58 | 28 | 53·8 | 35·9 | 44·4 | + 1·9 | 42 | 17 | 5 | 1·03 | + 0·50 | 26·5† | − 6·7† | 25† | − 8† |
| | Ochtertyre Ⓢ | 65 | 30 | 57·0 | 40·1 | 48·1 | + 1·9 | 51 | 5 | 6 | 1·11 | + 0·65 | * | * | * | * |
| | Leith Ⓢ | 64 | 35 | 57·3 | 42·0 | 49·3 | + 2·6 | 51 | 0 | 6 | 0·46 | + 0·16 | * | * | * | * |
| | Marchmont Ⓢ | 59 | 34 | 56·0 | 39·6 | 47·4 | + 2·7 | 48 | 7 | 5 | 0·84 | + 0·36 | 25·8 | − 9·2 | 25 | −10 |
| 2. ENGLAND, N.E. | Alnwick Castle Ⓜ | 62 | 36 | 59·3 | 40·9 | 49·7 | + 5·3 | 59 | 3 | 4 | 0·54 | + 0·13 | * | * | * | * |
| | Durham Ⓜ | 63 | 29 | 58·1 | 37·5 | 47·3 | + 2·0 | 56 | 13 | 4 | 0·36 | − 0·02 | 19·2 | −11·4 | 19 | −11 |
| | Shields Ⓜ | 62 | 34 | 55·0 | 41·6 | 48·0 | + 3·0 | 44 | 1 | 6 | 0·85 | + 0·30 | * | * | * | * |
| | Scarborough Ⓜ | 62 | 32 | 54·8 | 39·5 | 46·8 | + 1·0 | 44 | 7 | 2 | 0·23 | − 0·16 | ? | ? | ? | ? |
| | York Ⓜ | 61 | 34 | 56·7 | 42·3 | 49·2 | + 1·8 | 50 | 0 | 5 | 0·52 | + 0·19 | ? | ? | ? | ? |
| | Spurn Head Ⓜ | 62 | 40 | 53·3 | 43·3 | 48·1 | + 2·1 | 43 | 0 | 5 | 0·58 | + 0·30 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 61 | 40 | 56·3 | 43·6 | 49·9 | + 2·5 | 55 | 0 | 5 | 0·50 | + 0·15 | 10·3 | −28·2 | 10 | −29 |
| | Yarmouth Ⓜ | 59 | 41 | 53·0 | 43·6 | 48·1 | + 1·8 | 43 | 0 | 4 | 0·86 | + 0·53 | * | * | * | * |
| | Geldeston Ⓜ | 60 | 39 | 55·4 | 43·1 | 49·0 | + 2·0 | 49 | 0 | 3 | 0·63 | + 0·32 | 10·3 | −29·9 | 10 | −31 |
| | Cambridge Ⓜ | 62 | 39 | 58·3 | 43·1 | 50·3 | + 1·6 | 58 | 0 | 4 | 0·43 | + 0·08 | 16·7 | −22·1 | 17 | −21 |
| | Felixstowe Ⓜ | 60 | 41 | 53·6 | 44·4 | 48·8 | + 1·6 | 48 | 0 | 5 | 0·30 | ? | 20·0 | ? | 20 | ? |
| | Rothamsted Ⓜ | 60 | 40 | 55·7 | 43·4 | 49·3 | + 1·8 | 51 | 0 | 6 | 0·59 | + 0·12 | 18·8 | −17·2 | 19 | −17 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) Ⓜ | 63 | 29 | 57·7 | 40·1 | 48·5 | + 0·3 | 53 | 5 | 4 | 0·31 | − 0·01 | * | * | * | * |
| | Loughborough Ⓜ | 60 | 39 | 57·0 | 43·9 | 50·1 | + 1·3 | 57 | 0 | 5 | 0·42 | + 0·07 | * | * | * | * |
| | Stamford (Duddington) Ⓜ | 60 | 40 | 56·1 | 43·1 | 49·3 | + 1·0 | 51 | 0 | 5 | 0·35 | − 0·03 | * | * | * | * |
| | Cheadle Ⓜ | 58 | 35 | 54·3 | 41·9 | 47·8 | + 1·5 | 41 | 0 | 4 | 0·81 | + 0·40 | * | * | * | * |
| | Shirley (near Solihull) Ⓜ | 60 | 35 | 55·4 | 42·7 | 48·8 | + 1·2 | 48 | 0 | 5 | 0·53 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 62 | 31 | 55·6 | 42·0 | 48·5 | + 2·5 | 46 | 0 | 4 | 0·44 | + 0·05 | 23·0 | −13·1 | 23 | −13 |
| | Hereford Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester Ⓜ | 60 | 30 | 54·7 | 40·9 | 47·5 | + 0·6 | 43 | 3 | 5 | 0·42 | + 0·02 | 22·3 | −16·3 | 22 | −17 |
| | Oxford Ⓜ | 60 | 39 | 56·0 | 44·0 | 49·7 | + 1·0 | 54 | 0 | 5 | 0·44 | + 0·09 | 17·2 | −20·1 | 17 | −21 |
| 5. ENGLAND, S. | London Ⓜ | 63 | 40 | 58·1 | 44·7 | 51·1 | + 1·4 | 64 | 0 | 5 | 0·61 | + 0·23 | 16·0† | −16·9† | 16† | −16† |
| | Cranley Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Dungeness Ⓜ | 56 | 41 | 54·4 | 45·3 | 49·6 | + 1·5 | 53 | 0 | 3 | 0·56 | + 0·26 | * | * | * | * |
| | Hastings (St. Leonards) Ⓜ | 57 | 38 | 53·9 | 44·7 | 49·1 | + 0·3 | 50 | 0 | 4 | 0·91 | + 0·57 | 26·5 | −17·3 | 27 | −17 |
| | Southampton Ⓜ | 63 | 40 | 57·1 | 45·6 | 51·1 | + 1·2 | 64 | 0 | 6 | 0·69 | + 0·28 | 25·4 | −16·5 | 25 | −18 |
| | Hurst Castle Ⓜ | 55 | 42 | 53·6 | 45·4 | 49·3 | + 0·3 | 51 | 0 | 5 | 0·81 | + 0·49 | * | * | * | * |
| | Shaftesbury Ⓜ | 59 | 38 | 53·2 | 43·8 | 48·3 | + 0·7 | 44 | 0 | 7 | 0·94 | + 0·34 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) Ⓢ | 60 | 38 | 55·1 | 42·2 | 48·3 | + 0·8 | 44 | 0 | 5 | 1·30 | + 0·53 | * | * | * | * |
| | Glasgow Ⓢ | 60 | 38 | 55·4 | 42·1 | 48·4 | + 1·9 | 45 | 0 | 5 | 0·81 | + 0·44 | 14·2 | −17·7 | 14 | −18 |
| | Glenlee Ⓢ | 60 | 31 | 55·4 | 39·6 | 47·1 | + 0·9 | 46 | 7 | 6 | 1·44 | + 0·92 | * | * | * | * |
| | Douglas (Isle of Man) Ⓜ | 59 | 31 | 53·3 | 41·4 | 47·1 | + 0·1 | 38 | 2 | 6 | 1·23 | + 0·81 | 22·5 | −21·8 | 22 | −23 |
| 7. ENGLAND, N.W. | Stonyhurst Ⓜ | 58 | 33 | 54·6 | 41·0 | 47·5 | + 0·6 | 43 | 3 | 6 | 0·87 | + 0·40 | 21·5 | −14·5 | 21 | −15 |
| | Blackpool Ⓜ | 59 | 30 | 56·3 | 43·5 | 49·6 | + 2·0 | 53 | 0 | 6 | 1·42 | + 1·12 | 16·8 | −18·7 | 16 | −21 |
| | Manchester (Prestwich) Ⓜ | 59 | 32 | 55·7 | 40·6 | 47·8 | + 1·1 | 46 | 4 | 6 | 0·89 | + 0·50 | 15·1 | ? | 15 | ? |
| | Liverpool Obsy. (Bidston) Ⓜ | 59 | 37 | 55·0 | 44·3 | 49·4 | + 0·8 | 52 | 0 | 6 | 0·68 | + 0·39 | 15·2 | ? | 15 | ? |
| | Llandudno Ⓜ | 58 | 35 | 55·1 | 44·2 | 49·4 | + 0·6 | 52 | 0 | 6 | 0·79 | + 0·44 | 20·2 | −17·0 | 20 | −18 |
| | Holyhead Ⓜ | 56 | 40 | 51·9 | 44·0 | 47·8 | − 0·4 | 41 | 0 | 6 | 0·81 | + 0·45 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery Ⓜ | 61 | 30 | 55·9 | 42·1 | 48·7 | + 1·1 | 47 | 0 | 7 | 1·26 | + 0·75 | * | * | * | * |
| | Pembroke Ⓜ | 53 | 42 | 51·0 | 46·1 | 48·4 | + 0·8 | 45 | 0 | 5 | 0·61 | + 0·26 | 26·1 | −18·9 | 26 | −19 |
| | Clifton Ⓜ | 60 | 41 | 55·1 | 45·6 | 50·1 | + 2·2 | 57 | 0 | 6 | 0·67 | + 0·23 | * | * | * | * |
| | Arlington (N. Devon) Ⓜ | 59 | 36 | 53·4 | 42·3 | 47·6 | + 0·4 | 39 | 0 | 6 | 1·46 | + 0·95 | * | * | * | * |
| | Cullompton Ⓜ | 60 | 33 | 55·1 | 43·7 | 49·1 | − 0·1 | 50 | 0 | 6 | 0·61 | + 0·01 | 23·2 | −14·8 | 23 | −16 |
| | Falmouth Ⓜ | 60 | 44 | 55·5 | 47·1 | 51·1 | + 2·1 | 64 | 0 | 5 | 0·74 | + 0·06 | 29·0 | −15·9 | 29 | −17 |
| | Plymouth Ⓜ | 58 | 39 | 53·7 | 45·4 | 49·4 | − 0·4 | 52 | 0 | 6 | 1·00 | + 0·54 | 25·1 | −17·9 | 25 | −19 |
| | Prawle Point Ⓜ | 58 | 42 | 53·1 | 45·7 | 49·2 | + 1·5 | 50 | 0 | 6 | 0·79 | + 0·42 | * | * | * | * |
| 9. IRELAND, N. | Malin Head Ⓜ | 58 | 39 | 52·6 | 44·1 | 48·2 | + 0·9 | 43 | 0 | 5 | 0·96 | ? | * | * | * | * |
| | Londonderry Ⓜ | 63 | 38 | 56·4 | 42·0 | 48·9 | + 0·5 | 48 | 0 | 6 | 1·29 | + 0·90 | * | * | * | * |
| | Edenfel (Omagh) Ⓜ | 63 | 36 | 55·6 | 43·0 | 49·0 | + 2·5 | 49 | 0 | 6 | 1·16 | + 0·72 | * | * | * | * |
| | Belmullet Ⓜ | 55 | 40 | 52·9 | 45·3 | 48·9 | + 0·2 | 48 | 0 | 7 | 0·65 | + 0·19 | * | * | * | * |
| | Markree Castle Ⓜ | 63 | 28 | 55·7 | 41·1 | 48·1 | + 1·1 | 46 | 3 | 6 | 1·45 | + 0·99 | 11·9 | −24·9 | 12 | −25 |
| | Armagh Ⓜ | 61 | 38 | 56·2 | 42·1 | 48·8 | + 1·9 | 48 | 0 | 6 | 0·84 | + 0·34 | 15·1 | −19·9 | 15 | −20 |
| | Donaghadee Ⓜ | 56 | 34 | 53·1 | 41·6 | 47·1 | + 0·3 | 37 | 1 | 6 | 0·94 | + 0·56 | * | * | * | * |
| | Farnham (Cavan) Ⓜ | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin Ⓜ | 64 | 40 | 59·1 | 45·6 | 52.0 | + 3·2 | 70 | 0 | 5 | 0·71 | + 0·27 | 27·4 | −13·6 | 27 | −14 |
| | Parsonstown Ⓜ | 63 | 36 | 58·3 | 43·3 | 50·4 | + 2·6 | 59 | 0 | 6 | 0·90 | + 0·45 | 21·6 | −16·2 | 21 | −17 |
| | Kilkenny Ⓜ | 61 | 39 | 57·9 | 44·3 | 50·8 | + 2·3 | 62 | 0 | 6 | 0·80 | + 0·32 | * | * | * | * |
| | Roche's Point Ⓜ | 58 | 40 | 55·4 | 46·1 | 50·5 | + 1·0 | 60 | 0 | 5 | 0·49 | − 0·23 | * | * | * | * |
| | Valencia Ⓜ | 57 | 43 | 55·1 | 47·7 | 51·2 | + 1·6 | 64 | 0 | 6 | 1·05 | + 0·17 | 16·6 | −25·2 | 16 | −26 |
| | Killarney Ⓜ | 62 | 33 | 58·1 | 46·0 | 51·8 | + 2·9 | 69 | 0 | 5 | 0·71 | ? | * | * | * | * |
| | Foynes Ⓜ | 61 | 39 | 57·1 | 46·4 | 51·5 | + 2·9 | 67 | 0 | 4 | 0·62 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) Ⓜ | 57 | 46 | 55·4 | 48·0 | 51·5 | + 2·0 | 67 | 0 | 4 | 0·54 | + 0·14 | 23·1 | ? | 23 | ? |
| | Jersey Ⓜ | 62 | 44 | 55·7 | 47·1 | 51·2 | + 0·6 | 64 | 0 | 6 | 1·08 | + 0·71 | 37·4 | −10·5 | 38 | −11 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

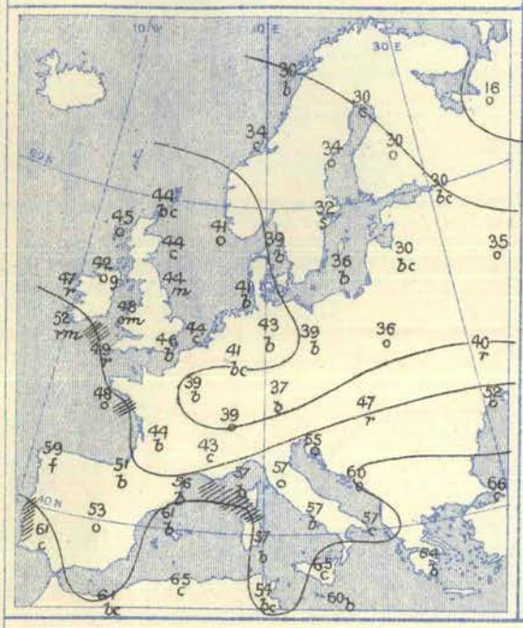
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College Westminster. For additional Reports of Sunshine, see last page.

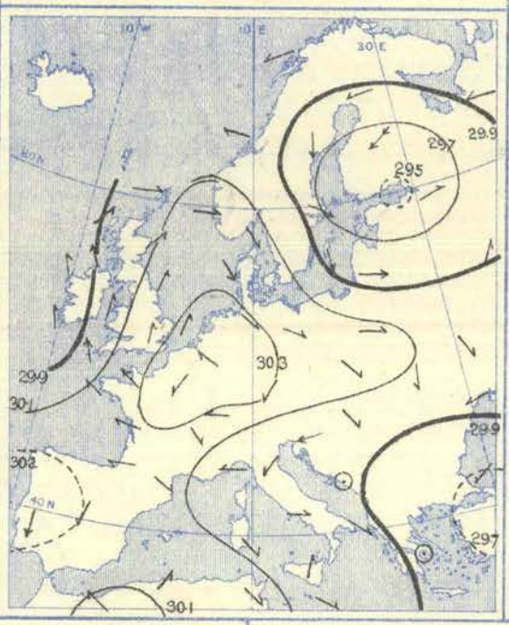
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 23rd April.

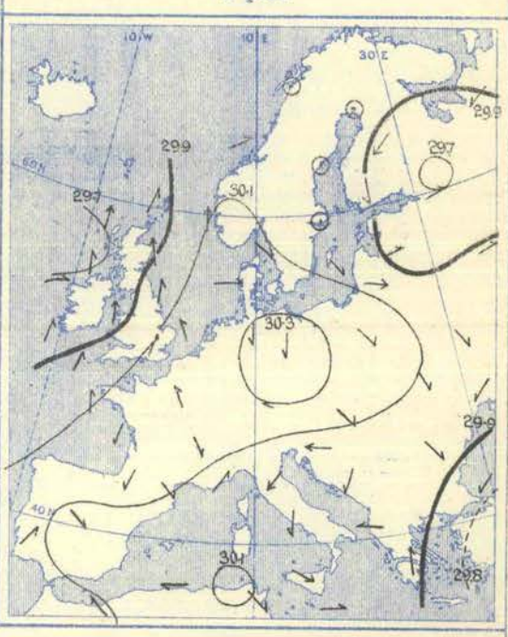
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over France and central Europe; fair over the south-eastern and central parts of England; dull and rainy over the western and south-western districts of the British Isles; unsettled over the Gulf of Finland and northern Europe. Rain showers later in nearly all parts of our Islands, heaviest over Ireland; fog in the south of Ireland and south-west of England, and at Brest.

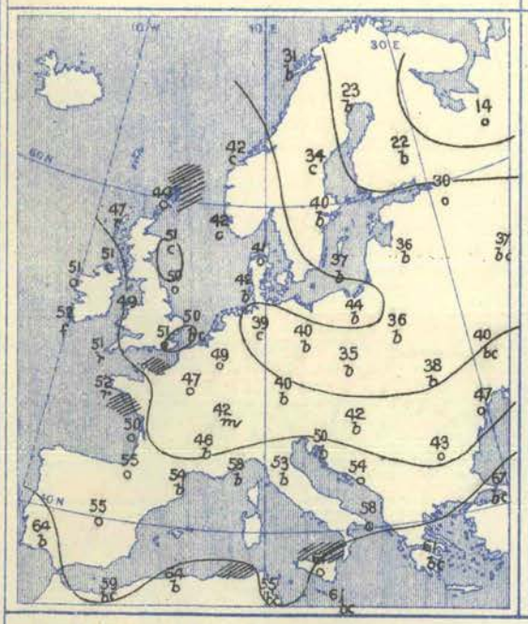
*Temperature* risen a little in our Islands; fallen over Russia and central Europe. Morning readings highest, 66° at Oran, and 55° to 60° over the bulk of the Mediterranean; 65° at Oporto, 52° at Valencia. Lowest, 16° at Archangel, 30° at many stations in northern Europe, 34° at Hernösand, 35° at Moscow. Rising later to between 54° and 58° in the northern parts of Great Britain, to between 50° and 53° in the south of England, to 58° at Paris, 66° at Nice, 70° at Marseilles, 73° at Palermo, 79° at Oran.

*Wind* (1) light and anticyclonic over Spain, France, Holland, and the east of England; (2) light to strong from the Southward on our western coasts; North-Easterly over Finland (a gale at Kuopio), North-Westerly over Sweden, Westerly over Germany; (3) very variable, but cyclonic, over the eastern parts of the Mediterranean and the Adriatic. Increasing from South and South-West over our Islands later, becoming anticyclonic over Germany.

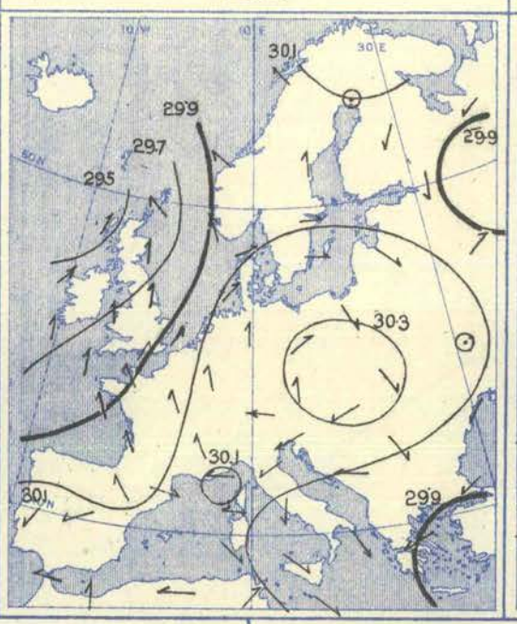
*Barometer* highest, 30·3 ins. to 30·1 ins. over the western parts of Continental Europe. Lowest, (1) 29·6 ins. and less over the Gulf of Finland; (2) 29·9 ins. and less over west of Ireland, and apparently still lower over the Atlantic; (3) below 29·8 ins. over Asia Minor, and below 30·0 ins. over the north-eastern and eastern parts of the Mediterranean. Falling a little over Great Britain later, rising over central Europe, unsteady in Ireland.

## Monday, 24th April.

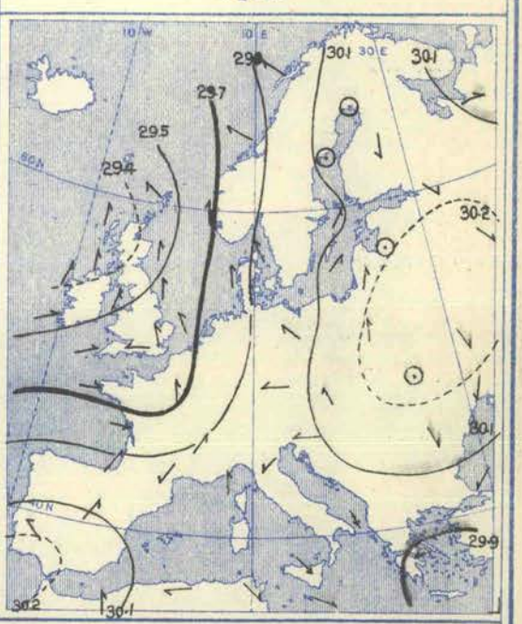
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning dull and changeable over the whole of the United Kingdom and France, fair over Scandinavia and northern Europe, fine over central and southern Europe, and the Mediterranean. Rain showers falling later in all parts of the British Islands and France, the amounts being largest over our southern districts and the north-west of France; fog very prevalent (temporarily) off our south-west coasts.

*Temperature* risen considerably over western Europe. Morning readings highest, considerably above 60° on the coasts of the Spanish Peninsula and the southern coasts of the Mediterranean, 67° at Athens, 58° at Nice, and 50° to 52° along the west coast of France and the extreme south-west and west of our Islands, and 51° in London and at Liverpool. Lowest, 14° at Archangel, 23° at Haparanda, and freezing all over the most northern parts of Europe, 35° to 40° over the inland parts of Germany. Rising later to 64° at Leith, 62° at Parsonstown, 60° at Paris, and 64° to 70° over the southern parts of France, to 70° at Cagliari, and 77° at Oran (Algeria).

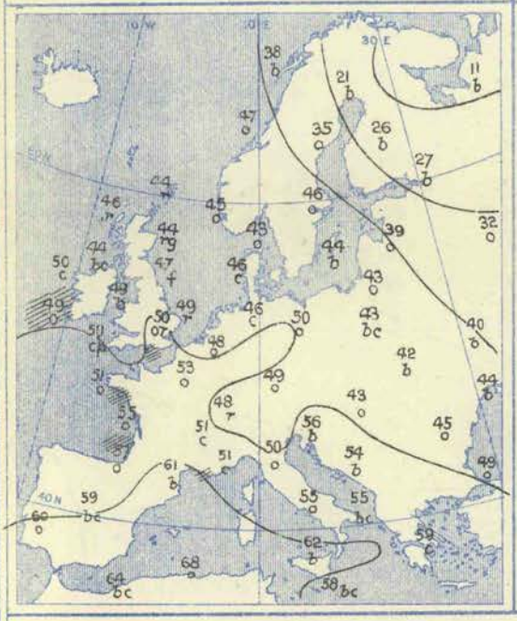
*Wind* light and anticyclonic over central and northern Europe: Southerly to South-Westerly over our Islands and the north of France—moderate to light over Great Britain, but fresh in many parts of Ireland. Becoming South-Easterly to Easterly over the south-eastern counties for a time later, but Southerly to Westerly over the remainder of western Europe; Northerly at Lisbon

*Barometer* highest, 30·3 ins. and more to 30·1 ins. over central and southern Europe, and in a "ridge" stretching northward to Scandinavia. Lowest, 29·5 ins. and less off our north-western coasts, and 29·9 ins. and less over the north of Russia. Other depressions reaching various parts of our Islands later, but none of great intensity.

## Tuesday, 25th April.

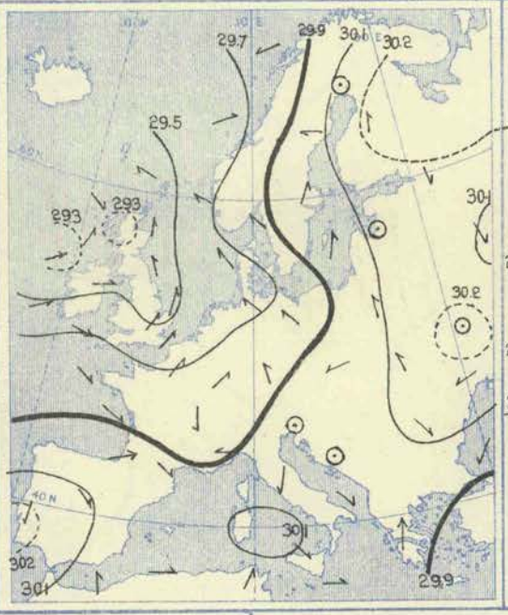
### Temperature and Weather.

8 a.m.

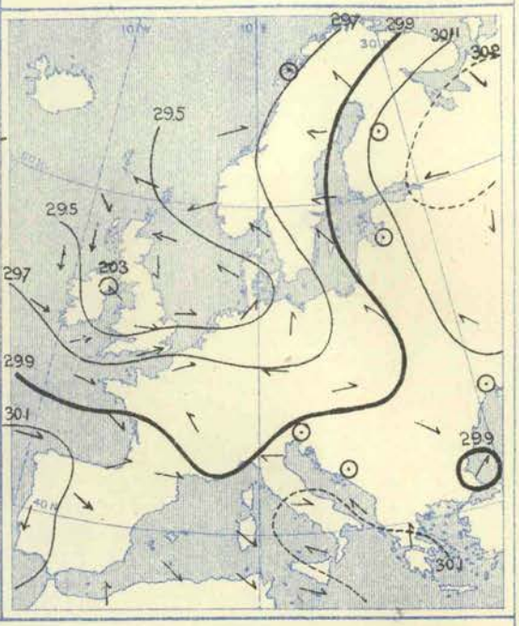


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning changeable, showery, and unsettled over our Islands generally, France and the North Sea; fair over Scandinavia; fine over Russia and central Europe. These conditions continuing all day—the amount of rain being greatest in the south-east of England, the Netherlands and east of France.

*Temperature* fallen decidedly in Ireland; risen over Germany and the Baltic; fallen over south-eastern Europe. Morning readings highest, 68° at Algiers, 62° at Barcelona, variable over the Adriatic and Mediterranean; 55° to 50° in the west and north-west of France; 50° at Berlin, Scilly, several of the English stations, and at Belmullet. Rising later to between 53° and 58° in many parts of our Islands, to 62° at Paris, 64° at Berlin, 66° at Lyons, 72° at Perpignan, 70° at Palermo, and 86° at Oran.

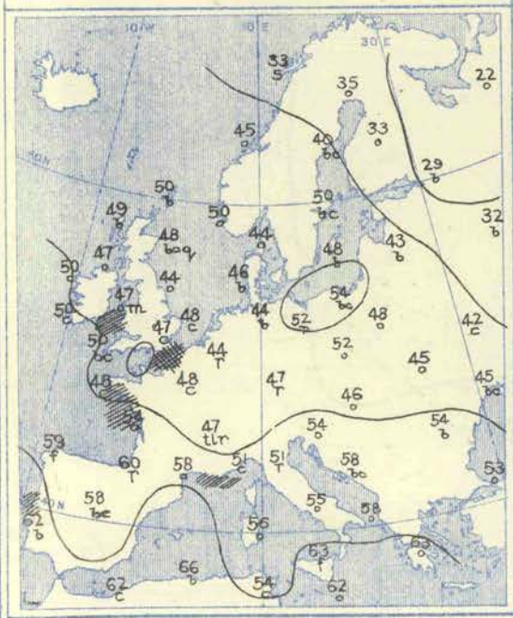
*Wind* light to moderate in force and anticyclonic over Russia and Poland, and also over Spain. Stronger from between West and South, and variable over our Islands; North-Westerly in the north-west of France. Blowing very strongly later from between West and North at several of our western stations, freshening greatly over the south of England.

*Barometer* highest, 30·2 ins. and more to 30·0 ins. (1) in a complex anticyclone over Russia, Poland, and the Baltic; (2) over the Iberian Peninsula. Lowest, 29·3 ins. and less to 29·6 ins. in a very complicated set of disturbances over our Islands and the North Sea. Beginning to rise in Scotland later, but falling over England and the North Sea.

## Wednesday, 26th April.

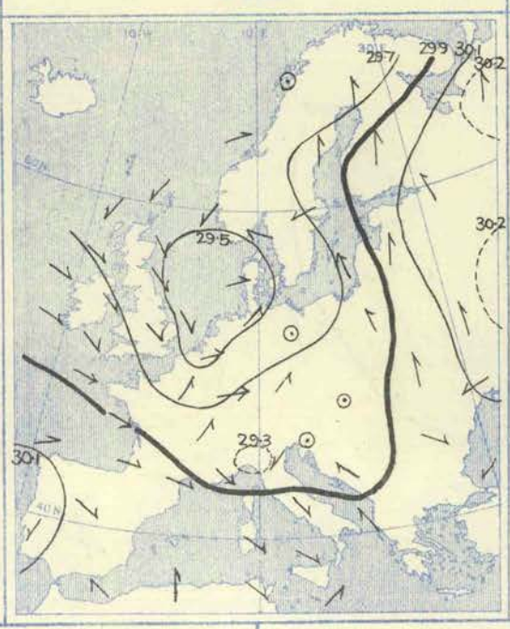
### Temperature and Weather.

8 a.m.

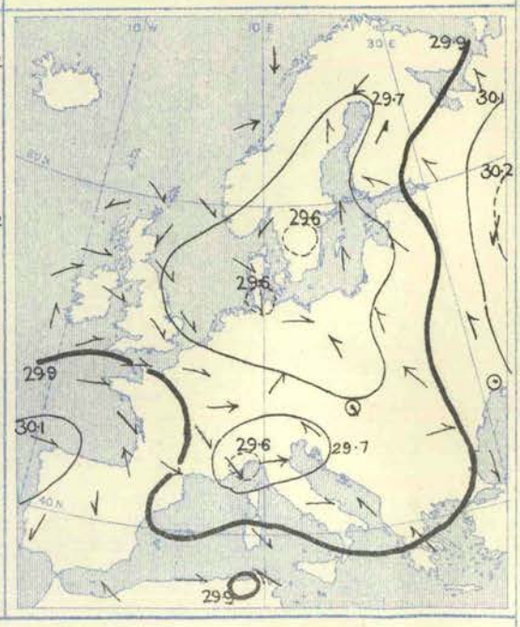


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning improving over Ireland and Scotland, but in a disturbed condition over France, Germany and the North Sea; fine over Russia and also over the Spanish Peninsula. Snow reported at Bodö. Showers later at many of the Continental stations and at Sumburgh Head, and still later over some parts of the west of Ireland.

*Temperature* inclined to rise again over Ireland; rising over the eastern and central parts of the Continent. Morning readings highest, (1) 66° at Algiers, 63° at Cagliari, and above 60° over the southern shores of the Mediterranean generally; (2) 54° to 50° in some parts of central Europe and the west of France; 50° on our south-west coasts. Lowest, (1) 22° at Archangel, 29° at St. Petersburg, and below 40° over the northern parts of Scandinavia and Russia generally. Rising later to between 55° and 60° in many parts of our Islands, to 57° at Paris, 70° at Nice, 72° at Rome, and 82° at Algiers

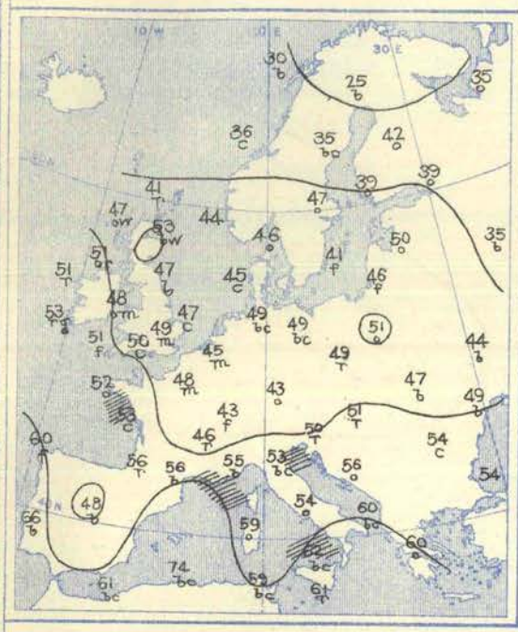
*Wind* light and anticyclonic (1) over Russia and eastern Europe; (2) over the Spanish Peninsula; cyclonic over north-western Europe, being North-Westerly, strong, over England; moderate to light over Ireland; South-Westerly over Holland; South-Easterly to North-Easterly in the south of Scandinavia. Falling light over England later, and beginning to back again in Ireland.

*Barometer* highest, 30·2 ins. and more to 29·9 ins. in an anticyclone covering Russia and nearly the whole of Finland; (2) 30·1 ins. and more to 29·9 ins. over the Spanish Peninsula and south-western Europe. Lowest, below 29·5 ins. in a depression over the North Sea. Rising in our Islands later as the eastern depression passed on towards the south of Sweden and continued to fill up.

## Thursday, 27th April.

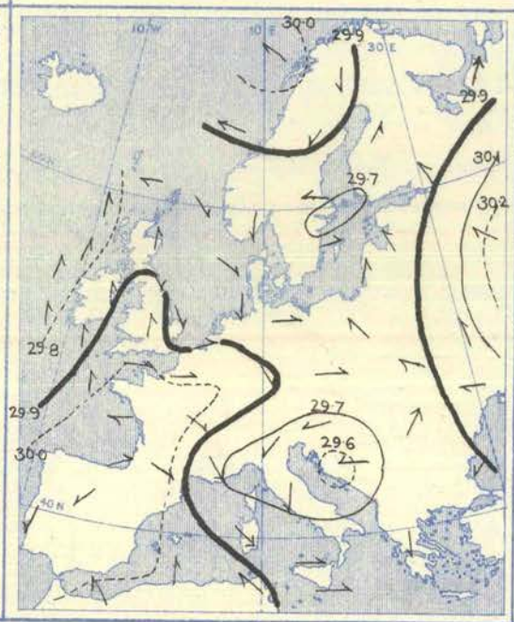
### Temperature and Weather.

8 a.m.

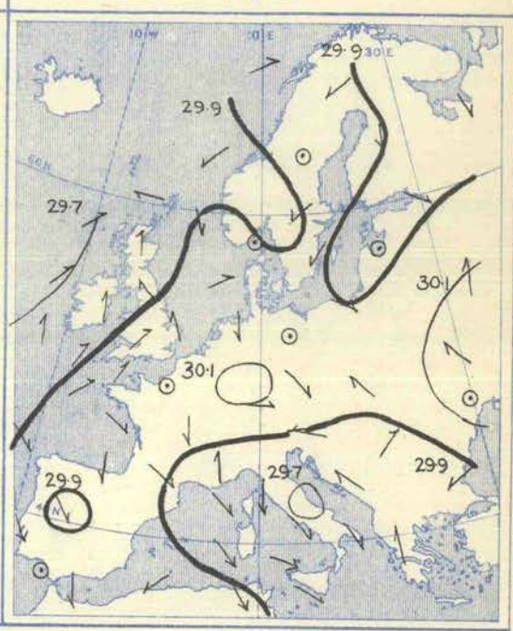


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine (1) over Spain and France, (2) over Russia and north Germany; changeable over north-western Europe, with showers in many places, fog in the south-west. Rain later on many parts of our northern, western, and southern coasts; fine weather over France, and also over Scandinavia.

*Temperature* risen decidedly over Finland. Morning readings highest, 74° at Algiers, 65° to 60° at many of the Mediterranean stations, 66° at Lisbon, 53° at Valencia and Aberdeen, and above 50° on the Atlantic and Channel coasts of the British Islands, 49° at Berlin, 48° at Paris. Lowest, 25° at Haparanda, 30° at Bodö, 35° at Archangel, Hernösand and Moscow. Rising later to between 55° and 62° over Great Britain and Ireland, to 62° at Paris, 63° at Berlin, and 66° at Nice.

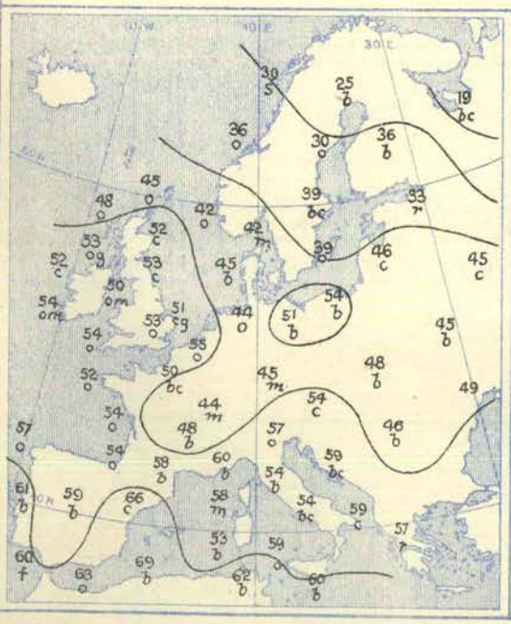
*Wind* (1) light and anticyclonic over Russia on the one hand, and over the Iberian Peninsula on the other; (2) Southerly in Ireland, the Irish Channel and Scotland; South-Easterly in the north-west of Norway; cyclonic and strong over Italy and the eastern parts of the Mediterranean. No great change reported later.

*Barometer* highest, (1) 30·2 ins. and more to 29·8 ins. over Russia; (2) 30·0 ins. and more over Spain and the west of France, and 29·9 ins. and more over England. Lowest, (1) 29·6 ins. and less to 29·7 ins. in a depression over the Adriatic and Italy; (2) 29·75 ins. to 29·7 ins. over the Baltic; (3) below 29·8 ins. off our extreme west and north-west coasts. Falling later in our Islands, rising over Scandinavia.

## Friday, 28th April.

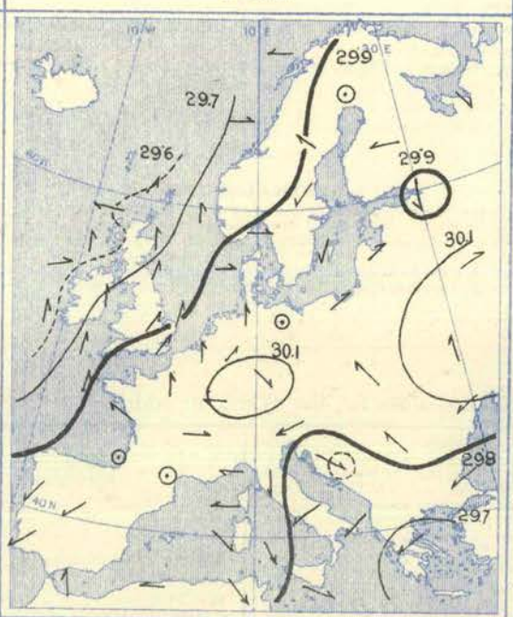
### Temperature and Weather.

8 a.m.

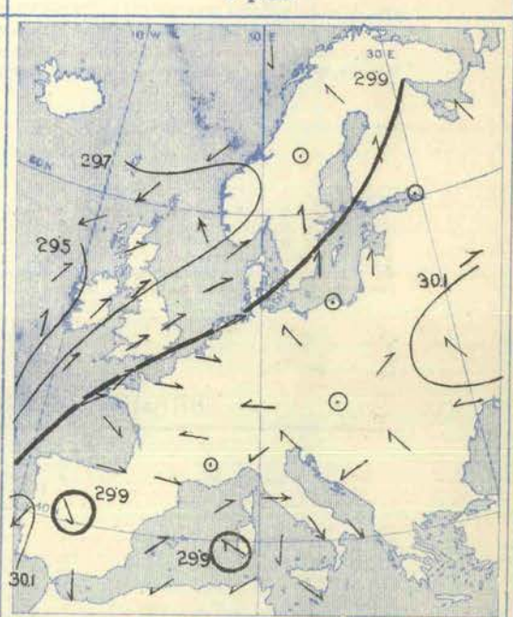


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning very cloudy over our Islands and their neighbourhood, and unsettled looking, rain or sleet in the north of Europe; fine over the south-western, central and south-eastern countries. Showers later over all the western and northern parts of the Kingdom (rainfall heavy in the northern parts of Scotland), and slight local showers in France.

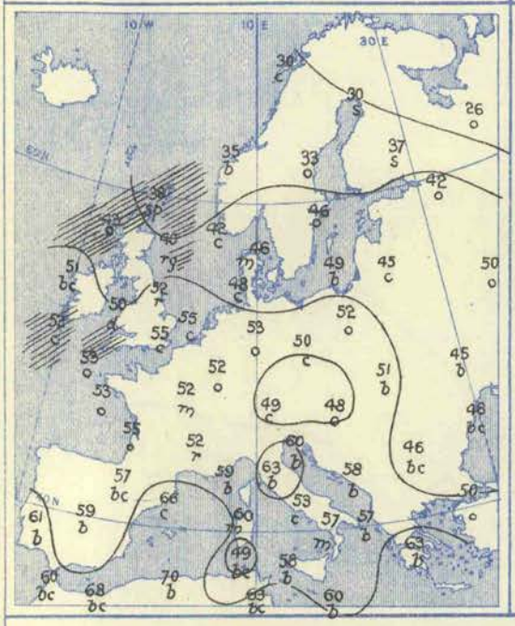
*Temperature* in morning highest, 69° at Algiers, 66° at Barcelona, 61° at Lisbon; 54° at Valencia and Scilly, and above 50° over our Islands generally. Rising later to between 60° and 63° in several parts of Ireland and England, to 66° at Berlin, 69° at Paris, 70° at Rome and Palermo, and 75° at Algiers. Falling considerably in the north of Scotland at night.

*Wind* still light and anticyclonic (complex) over the southern and south-eastern half of Europe; South-South-Westerly over the greater part of our Islands and their neighbourhood, but Easterly at Stornoway. An Easterly breeze of great strength becoming general in the north of Scotland later, but South-Westerly breezes continuing over England.

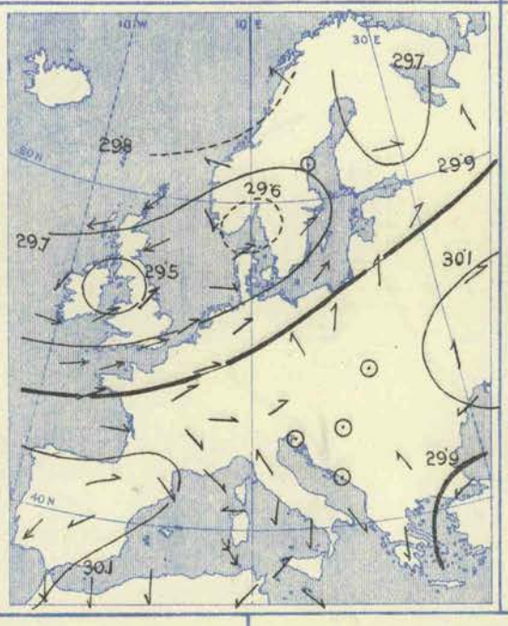
*Barometer* highest, 30·3 ins. and more to 30·1 ins. over the south of Russia, and 30·1 ins. and more to 29·9 ins. over southern and south-western Europe generally. Lowest, 29·6 ins. and less off the western parts of Ireland and Scotland. Falling over Ireland, England and France all day, but beginning to rise at evening in north of Scotland.

## Saturday, 29th April.

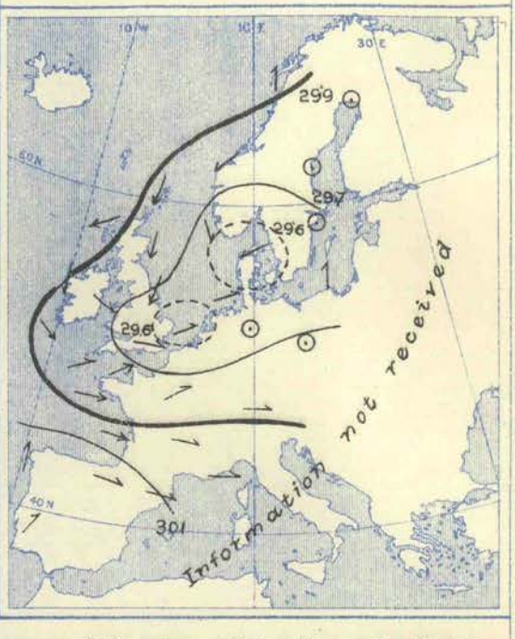
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.




*Weather* in morning fine over eastern, central, southern, and south-western Europe, but dull and very unsettled in the northern and north-western countries; rain in many places; squally in Scotland. Considerable rain later (and some sleet) in the eastern parts of Scotland and England, and showers in the north-west and west; 0·6 in. of rain at Cuxhaven also, and 0·3 in. at Belfort. Thunder and lightning in the north-east of England.

*Temperature* fallen decidedly in Scotland. Morning readings highest, 70° at Algiers, 69° at Oran, 61° at Lisbon, 57° to 53° in the west of France, 52° to 51° in the west of Ireland, 50° at Berlin and Moscow. Lowest, 25° at Haparanda, 33° at Hernösand, 38° at Sumburgh Head, 40° at Aberdeen. Reaching 63° in London, 62° at Paris, 64° at Lyons, and 70° at Nice later, but falling decidedly at our northern stations at night.

*Wind* (1) very light and variable over all the eastern, central, southern, and south-western countries; (2) South-Westerly to Southerly over the south of our Islands and North Sea, Denmark, and the south of Sweden; (3) Easterly and strong in the north-west of Norway; North-Easterly, strong, in Scotland; Northerly in the north of Ireland. The North-Easterly wind in Scotland continuing strong later, and Northerly breezes spreading to the north of England.

*Barometer* highest, (1) 30·2 ins. and more over the southern half of Russia; (2) 30·1 ins. and more to 30·0 ins. over the Iberian Peninsula and the south-west of France; (3) 29·8 ins. and more off the north-west of Norway. Lowest, 29·6 ins. and less in a depression over the south of Norway, and below 29·5 ins. over the Irish Sea—the two forming distinct minima in a complex trough, stretching from Ireland to the south of Scandinavia. Rising in Ireland and Scotland later, as this disturbance moved east-south-eastwards.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟹ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During this week a series of depressions of moderate intensity, and sometimes very complex in form have been passing not only across our Islands, but over nearly the whole of Europe—and mostly in a south-easterly direction. In front of these disturbances the Southerly winds have been comparatively mild, while the North-Westerly to North-Easterly winds in their rear have been cold, and accompanied occasionally by sleet at the northern stations. Thunderstorms occurred several times with the change of current.

On some occasions the thermometer over northern Europe went down to below 20°, while on others it rose to upwards of 70° over southern Europe, and on the 28th it reached a maximum of 82° at Lisbon. In our Islands the changes, though decided, were not very extensive.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 98.

| Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 32·6 | ? | 31 | ? | WATERGATE (Emsworth) | 27·0 | ? | 27 | ? |
| STRATHPEFFER SPA | 15·4 | −20·6 | 15 | −20 | BRIGHTON | 26·3 | −17·7 | 26 | −18 |
| EDINBURGH | 24·5 | − 5·7 | 24 | − 6 | BOGNOR | 31·4* | ? | 31* | ? |
| MORPETH | 13·9 | ? | 13 | ? | EASTBOURNE | 30·0 | −12·9 | 30 | −13 |
| NEWCASTLE-ON-TYNE | 12·5 | ? | 12 | ? | VENTNOR HOSPITAL | 26·6 | ? | 27 | ? |
| OSWALDKIRK (Yorkshire) | 16·1 | −18·2 | 16 | −17 | SOUTHPORT | 18·1 | ? | 18 | ? |
| HOLLESLEY BAY | 16·1 | ? | 16 | ? | COLWYN BAY | | | | |
| SHEFFIELD | 13·9 | ? | 14 | ? | ABERDOVEY | 14·1* | ? | 14* | ? |
| WORKSOP | 13·2 | −18·9 | 13 | −19 | TENBY | 23·6 | −23·4 | 23 | −25 |
| THURCASTON (Leicestershire) | 14·2 | −19·1 | 14 | −20 | NEWQUAY | 27·0 | −16·2 | 27 | −17 |
| PLUMSTEAD COMMON | 12·4 | ? | 12 | ? | TORQUAY | 29·8* | −13·7 | 30* | −14 |
| MARGATE | 18·8 | −19·0 | 19 | −18 | GUERNSEY | 34·3* | −14·2 | 35* | −15 |
| WESTBOURNE (Emsworth) | 33·1* | −11·7 | 33* | −13 | | | | | |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

Wyman & Sons, Ltd., Lith., 63, Carter Lane.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. No. 18.] *Third Series.* WEEK ENDING SATURDAY, MAY 6TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 104.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 60 | 25 | 50·8 | 33·4 | 41·6 | 4 below | 25 | − 9 | 33 | +22 | 222 | − 1 | 590 | − 6 |
| | 1. SCOTLAND, EAST | 58 | 25 | 49·3 | 33·1 | 40·7 | 6 below | 20 | −21 | 33 | +22 | 272 | − 18 | 639 | + 9 |
| | 2. ENGLAND, N.E. | 52 | 28 | 49·2 | 36·8 | 42·6 | 4 below | 26 | −12 | 15 | + 8 | 374 | + 94 | 448 | − 89 |
| | 3. ENGLAND, EAST | 59 | 29 | 52·2 | 37·5 | 44·4 | 4 below | 36 | −16 | 13 | + 6 | 479 | +112 | 421 | −181 |
| | 4. MIDLAND COUNTIES | 62 | 28 | 54·9 | 36·7 | 45·2 | 3 below | 45 | − 9 | 15 | + 7 | 487 | + 91 | 470 | −135 |
| | 5. ENGLAND SOUTH | 67 | 31 | 55·8 | 40·8 | 47·8 | 2 below | 46 | −12 | 3 | + 1 | 553* | +138 | 294 | −178 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 59 | 27 | 52·4 | 36·1 | 43·8 | 4 below | 37 | − 8 | 17 | +10 | 327 | + 15 | 404* | − 46 |
| | 7. ENGLAND, N.W. | 57 | 31 | 52·7 | 38·6 | 45·4 | 3 below | 38 | − 9 | 10 | + 5 | 424 | +106 | 313 | −135 |
| | 8. ENGLAND, S.W. | 66 | 32 | 55·4 | 42·3 | 48·5 | 1 below | 46 | − 7 | 0 | − 3 | 558 | +126 | 240 | −117 |
| | 9. IRELAND, NORTH | 64 | 32 | 54·7 | 39·6 | 46·7 | 1 below | 43 | − 5 | 7 | + 2 | 424 | + 40 | 323 | − 64 |
| | 10. IRELAND, SOUTH | 64 | 31 | 56·8 | 43·0 | 49·5 | 0 (average) | 53 | − 1 | 0 | − 3 | 610 | +115 | 244 | − 50 |
| | —CHANNEL ISLANDS | 59 | 43 | 56·4 | 46·2 | 51·0 | 0 (average) | 63 | + 4 | 0 | 0 | 794 | +266 | 81 | − 67 |

### Rainfall.

| | DISTRICTS. (See p. 104.) | For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 2 | 2 | 4 less | 83 | − 2 | 18·2 | + 1·4 |
| | 1. SCOTLAND, EAST | 3 | 3 | 1 less | 78 | +12 | 11·9 | + 2·3 |
| | 2. ENGLAND, N.E. | 3 | 5 | 2 more | 69 | + 5 | 7·7 | + 0·2 |
| | 3. ENGLAND, EAST | 1 | less than ½ | 4 less | 65 | + 2 | 7·1 | − 0·1 |
| | 4. MIDLAND COUNTIES | 1 | less than ½ | 3 less | 64 | + 4 | 9·3 | + 1·1 |
| | 5. ENGLAND, SOUTH | 1 | less than ½ | 4 less | 58 | 0 | 8·7* | 0·0 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 2 | 5 | 0 (average) | 79 | + 8 | 18·5 | + 2·1 |
| | 7. ENGLAND, N.W. | 2 | 2 | 2 less | 74 | + 9 | 12·4 | + 2·6 |
| | 8. ENGLAND, S.W. | 1 | less than ½ | 5 less | 71 | + 5 | 16·1 | + 3·7 |
| | 9. IRELAND, NORTH | 2 | 2 | 3 less | 87 | +12 | 13·3 | + 1·8 |
| | 10. IRELAND, SOUTH | 1 | less than ½ | 6 less | 73 | + 3 | 16·1 | + 3·0 |
| | — CHANNEL ISLANDS | 0 | — | 4 less | 68 | − 4 | 10·9 | + 0·1 |

### Bright Sunshine.

| | DISTRICTS. (See p. 104.) | For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 59 | +21 | 54 | +19 | 386 | + 47 | 28 | + 4 |
| | 1. SCOTLAND, EAST | 42 | + 6 | 39 | + 5 | 407 | + 37 | 30 | + 2 |
| | 2. ENGLAND, N.E. | 40 | + 6 | 38 | + 5 | 381 | + 16 | 28 | + 1 |
| | 3. ENGLAND, EAST | 60 | +18 | 57 | +16 | 526 | + 84 | 37 | + 6 |
| | 4. MIDLAND COUNTIES | 50 | +15 | 48 | +14 | 441 | + 74 | 34 | + 6 |
| | 5. ENGLAND, SOUTH | 56 | +11 | 54 | +10 | 521 | + 84 | 38 | + 6 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 57 | +17 | 54 | +15 | 391 | + 13 | 29 | + 1 |
| | 7. ENGLAND, N.W. | 61 | +23 | 58 | +20 | 450 | + 76 | 33 | + 6 |
| | 8. ENGLAND, S.W. | 56 | +11 | 54 | + 9 | 508 | + 34 | 37 | + 2 |
| | 9. IRELAND, NORTH | 53 | +15 | 51 | +15 | 432 | + 64 | 32 | + 5 |
| | 10. IRELAND, SOUTH | 56 | +14 | 53 | +12 | 478 | + 42 | 35 | + 3 |
| | — CHANNEL ISLANDS | 58 | + 8 | 57 | + 6 | 562 | + 57 | 42 | + 4 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was rather unsettled at the commencement of the week, with occasional rain at most of our more northern and north-western stations. After Tuesday, however, very dry conditions, with fine bright days and cold nights, set in over the whole Kingdom and continued throughout the rest of the period.

*Temperature* was just equal to the mean in Ireland S. and the Channel Islands, but below it elsewhere, the deficit ranging from 1° in England S.W. and Ireland N., to 4° in England N.E. and E., and the north and west of Scotland, and to as much as 6° in Scotland E. The highest of the maxima were registered either during the middle or end of the period, and ranged from 67° in England S., 66° in England S.W., and 64° in Ireland, to 57° in England N.W., and to 52° in England N.E. The absolute minima, which occurred during the latter half of the week, were very low for the time of year. In Scotland N. and E., the thermometer in the screen fell to 25°, in Scotland W. to 27°, and in England N.E. and the Midland Counties to 28°, while elsewhere the minima varied from 29° in England E. to 32° in England S.W. and Ireland N., and to 43° in the Channel Islands. The diurnal range was therefore large, and sharp ground frost prevailed almost nightly, the lowest grass readings reported being 22° at Fort William, and 23° at Ochtertyre and Loughborough.

*Rainfall* exceeded the mean in England N.E., and just equalled it in Scotland W., but was much less than the normal elsewhere. Over the southern half of the Kingdom, the fall was hardly appreciable, and many stations were entirely without rain.

*Bright Sunshine* was in excess in all districts. The percentage of the possible amount of duration ranged from 58 in England N.W., and 57 in England E. and the Channel Islands, to 39 in Scotland E., and 38 in England N.E.

*Barometer and Wind.*—At the commencement of the period an anticyclone was passing quickly eastwards over the more southern parts of the Kingdom, with Northerly winds in the east, and Southerly breezes in the west. By Monday a depression had reached our north-western coasts, and this system, after moving eastwards to the east of Scotland, passed away south-eastwards to Germany. It was succeeded over our Islands by an anticyclone, which during the remainder of the week continued to spread over us from the north-westward. North-Easterly and Easterly winds consequently set in very generally, and blew freshly at times in the English Channel.

207 | 90 Wy. & S., Ltd.
613 | 70 5 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 103 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head § | 49 | 33 | 47·1 | 35·6 | 41·0 | − 2·6 | 14 | 24 | 1 | 0·17 | − 0·23 | * | * | * | * |
| | Stornoway § | 55 | 33 | 51·6 | 34·9 | 42·8 | − 2·5 | 35 | 20 | 1 | 0·03 | − 0·49 | 71·0 | +30·2 | 65 | +27 |
| | Wick § | 57 | 29 | 51·9 | 34·0 | 42·4 | − 3·1 | 36 | 22 | 2 | 0·07 | − 0·34 | * | * | * | * |
| | Lairg § | 56 | 25 | 50·4 | 28·3 | 38·7 | − 6·6 | 24 | 49 | 2 | 0·02 | − 0·47 | * | * | * | * |
| | Glencarron § | 60 | 30 | 50·8 | 32·5 | 41·1 | − 4·7 | 25 | 36 | 3 | 0·16 | − 0·76 | * | * | * | * |
| | Fort Augustus § | 58 | 27 | 50·0 | 33·1 | 41·0 | − 6·8 | 22 | 33 | 2 | 0·28 | − 0·23 | 45·6 | +17·8 | 42 | +14 |
| | Fort William § | 60 | 31 | 53·6 | 35·3 | 43·9 | − 4·2 | 41 | 19 | 2 | 0·34 | − 0·46 | 60·5 | +23·7 | 56 | +21 |
| 1. SCOTLAND E. | Nairn | 55 | 28 | 49·6 | 32·1 | 40·3 | − 6·8 | 21 | 36 | 2 | 0·15 | − 0·17 | * | * | * | * |
| | Aberdeen | 52 | 31 | 47·3 | 34·6 | 40·6 | − 5·3 | 15 | 27 | 3 | 0·10 | − 0·32 | 40·0 | + 0·8 | 37 | 0 |
| | Braemar § | 57 | 25 | 47·3 | 29·2 | 37·7 | − 5·8 | 15 | 45 | 3 | 0·33 | − 0·20 | 39·8† | + 4·2† | 37† | + 3† |
| | Ochtertyre § | 58 | 28 | 53·6 | 32·4 | 42·4 | − 4·9 | 43 | 27 | 4 | 0·50 | + 0·03 | * | * | * | * |
| | Leith | 53 | 33 | 51·0 | 36·0 | 43·1 | − 4·6 | 33 | 17 | 3 | 0·28 | − 0·02 | * | * | * | * |
| | Marchmont § | 50 | 30 | 47·1 | 34·0 | 40·2 | − 5·5 | 14 | 29 | 3 | 0·37 | + 0·18 | 37·3 | + 0·3 | 35 | 0 |
| 2. ENGLAND, N.E. | Alnwick Castle | 52 | 30 | 50·3 | 34·9 | 42·1 | − 3·2 | 31 | 20 | 3 | 0·76 | + 0·34 | * | * | * | * |
| | Durham | 52 | 28 | 48·7 | 34·4 | 41·1 | − 5·3 | 19 | 28 | 3 | 0·58 | + 0·20 | 42·5 | + 9·0 | 40 | + 9 |
| | Shields | 51 | 34 | 48·4 | 37·1 | 42·4 | − 3·5 | 23 | 14 | 4 | 0·79 | + 0·44 | * | * | * | * |
| | Scarborough ℳ | 51 | 31 | 49·1 | 36·6 | 42·5 | − 4·4 | 26 | 15 | 3 | 0·37 | − 0·03 | ? | | ? | ? |
| | York | | | | | | | | | | | | | | | |
| | Spurn Head | 52 | 38 | 49·6 | 41·0 | 45·0 | − 2·0 | 25 | 3 | 2 | 0·22 | − 0·08 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 54 | 31 | 52·5 | 35·1 | 43·3 | − 5·1 | 38 | 19 | 1 | 0·02 | − 0·34 | 61·4 | +19·8 | 58 | +18 |
| | Yarmouth | 52 | 35 | 50·1 | 41·3 | 45·4 | − 2·1 | 27 | 2 | 0 | — | − 0·34 | * | * | * | * |
| | Geldeston | 57 | 29 | 52·5 | 35·2 | 43·3 | − 4·7 | 38 | 19 | 2 | 0·03 | − 0·28 | 61·4 | +18·4 | 59 | +16 |
| | Cambridge | | | | | | | | | | | | | | | |
| | Felixstowe | 59 | 33 | 52·3 | 38·7 | 45·1 | − 3·2 | 36 | 9 | 1 | 0·02 | ? | 61·3 | ? | 59 | ? |
| | Rothamsted | 58 | 32 | 53·7 | 37·1 | 44·9 | − 3·6 | 41 | 14 | 0 | — | − 0·48 | 52·7 | +14·4 | 51 | +14 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 62 | 29 | 56·0 | 34·4 | 44·6 | − 4·7 | 50 | 21 | 3 | 0·16 | − 0·17 | * | * | * | * |
| | Loughborough | 58 | 28 | 54·7 | 35·9 | 44·7 | − 4·9 | 45 | 17 | 2 | 0·02 | − 0·35 | * | * | * | * |
| | Stamford (Duddington) | 58 | 30 | 54·9 | 35·7 | 44·7 | − 4·6 | 45 | 18 | 1 | 0·01 | − 0·39 | * | * | * | * |
| | Cheadle ℳ | 56 | 32 | 52·8 | 36·9 | 44·4 | − 2·9 | 38 | 14 | 1 | 0·02 | − 0·41 | * | * | * | * |
| | Shirley (near Solihull) | 58 | 30 | 55·0 | 36·8 | 45·4 | − 3·4 | 46 | 15 | 1 | 0·05 | ? | * | * | * | * |
| | Churchstoke ℳ | 58 | 29 | 54·4 | 36·1 | 44·7 | − 2·3 | 44 | 17 | 1 | 0·03 | − 0·37 | 55·1 | +17·1 | 52 | +15 |
| | Hereford ℳ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 61 | 30 | 55·4 | 38·3 | 46·3 | − 1·7 | 46 | 10 | 0 | — | − 0·40 | 54·0 | +12·8 | 52 | +12 |
| | Oxford | 61 | 32 | 55·6 | 39·3 | 47·0 | − 2·5 | 46 | 8 | 0 | — | − 0·35 | 55·8 | +16·3 | 54 | +15 |
| 5. ENGLAND, S. | London | 62 | 36 | 56·9 | 40·3 | 48·1 | − 2·6 | 50 | 5 | 0 | — | − 0·38 | 44·1† | + 8·5† | 42† | + 8† |
| | Cranley ℳ | 65 | 31 | 56·4 | 37·8 | 46·5 | − 3·3 | 49 | 12 | 1 | 0·03 | ? | * | * | * | * |
| | Dungeness | 59 | 33 | 53·9 | 41·7 | 47·4 | − 1·8 | 39 | 1 | 0 | — | − 0·30 | * | * | * | * |
| | Hastings (St. Leonards) | 60 | 36 | 53·2 | 40·0 | 46·2 | − 3·5 | 38 | 6 | 1 | 0·08 | − 0·25 | 59·9 | +12·9 | 58 | +11 |
| | Southampton | 67 | 34 | 58·3 | 41·3 | 49·3 | − 1·8 | 54 | 2 | 0 | — | − 0·40 | 53·8 | + 9·8 | 52 | + 8 |
| | Hurst Castle | 59 | 37 | 56·3 | 43·1 | 49·3 | − 0·6 | 51 | 0 | 1 | 0·01 | − 0·31 | * | * | * | * |
| | Shaftesbury ℳ | 64 | 33 | 55·3 | 41·3 | 47·9 | − 0·6 | 44 | 2 | 1 | 0·04 | − 0·54 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 59 | 30 | 53·9 | 37·0 | 44·9 | − 3·5 | 41 | 14 | 2 | 0·34 | − 0·44 | * | * | * | * |
| | Glasgow § | 56 | 33 | 50·3 | 36·0 | 42·7 | − 4·8 | 30 | 17 | 2 | 0·32 | − 0·06 | 54·2 | +20·9 | 51 | +19 |
| | Glenlee § | 59 | 27 | 54·2 | 31·6 | 42·2 | − 5·0 | 45 | 29 | 2 | 1·00 | + 0·49 | * | * | * | * |
| | Douglas (Isle of Man) | 54 | 35 | 51·3 | 39·8 | 45·2 | − 2·6 | 32 | 6 | 2 | 0·45 | + 0·03 | 59·9 | +13·9 | 57 | +12 |
| 7. ENGLAND, N.W. | Stonyhurst | 55 | 33 | 52·6 | 37·7 | 44·7 | − 3·2 | 37 | 12 | 2 | 0·52 | + 0·04 | 60·4 | +22·4 | 57 | +20 |
| | Blackpool ℳ | 56 | 31 | 54·5 | 36·8 | 46·1 | − 2·4 | 51 | 15 | 2 | 0·31 | − 0·01 | ?60·2 | ?+22·2 | ?57 | ?+19 |
| | Manchester (Prestwich) | 56 | 33 | 53·0 | 37·3 | 44·7 | − 2·8 | 39 | 13 | 1 | 0·19 | − 0·21 | 57·1 | ? | 54 | ? |
| | Liverpool Obsy. (Bidston) | 56 | 35 | 53·0 | 39·1 | 45·6 | − 4·0 | 37 | 8 | 2 | 0·13 | − 0·17 | 52·6 | ? | 50 | ? |
| | Llandudno ℳ | 57 | 36 | 52·1 | 40·4 | 45·9 | − 3·8 | 34 | 4 | 0 | — | − 0·35 | 61·9 | +22·9 | 59 | +20 |
| | Holyhead | 54 | 38 | 51·1 | 40·4 | 45·4 | − 3·7 | 31 | 4 | 2 | 0·06 | − 0·29 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 61 | 32 | 58·0 | 37·9 | 47·4 | − 1·1 | 55 | 11 | 1 | 0·04 | − 0·46 | * | * | * | * |
| | Pembroke | 55 | 40 | 52·6 | 44·1 | 48·1 | − 0·3 | 43 | 0 | 1 | 0·02 | − 0·32 | 65·8 | +19·1 | 63 | +18 |
| | Clifton | 62 | 36 | 56·8 | 42·0 | 49 0 | + 0·1 | 49 | 0 | 1 | 0·01 | − 0·44 | | | | |
| | Arlington (N. Devon) § | 58 | 35 | 55·0 | 39·6 | 46·8 | − 1·6 | 44 | 7 | 1 | 0·15 | − 0·36 | * | * | * | * |
| | Cullompton ℳ | 66 | 32 | 57·2 | 40·2 | 48·2 | − 1·6 | 51 | 5 | 0 | — | − 0·58 | 46·0 | + 6·0 | 45 | + 4 |
| | Falmouth | 60 | 43 | 55·1 | 45·2 | 49·9 | − 0·0 | 55 | 0 | 0 | — | − 0·66 | 54·4 | + 7·4 | 53 | + 6 |
| | Plymouth | 61 | 40 | 54·8 | 43·4 | 48·8 | − 2·1 | 48 | 0 | 0 | — | − 0·45 | 55·1 | +10·4 | 53 | + 8 |
| | Prawle Point | 57 | 42 | 53·6 | 45·6 | 49·4 | + 0·7 | 52 | 0 | 0 | — | − 0·34 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 54 | 38 | 50·7 | 40·9 | 45·5 | − 2·5 | 29 | 3 | 2 | 0·35 | ? | * | * | * | * |
| | Londonderry | 64 | 34 | 58·2 | 38·6 | 47·8 | − 1·5 | 55 | 10 | 3 | 0·12 | − 0·27 | * | * | * | * |
| | Edenfel (Omagh) | 62 | 32 | 56·0 | 37·3 | 46·1 | − 1·2 | 48 | 13 | 2 | 0·22 | − 0·23 | * | * | * | * |
| | Belmullet | 61 | 38 | 55·6 | 41·1 | 47·9 | − 1·5 | 45 | 3 | 3 | 0·11 | − 0·36 | * | * | * | * |
| | Markree Castle | 61 | 32 | 56·2 | 38·2 | 46·7 | − 0·9 | 49 | 11 | 2 | 0·12 | − 0·36 | 50·5 | +11·7 | 48 | +11 |
| | Armagh | 61 | 33 | 54·3 | 37·8 | 45·6 | − 2·0 | 43 | 12 | 3 | 0·14 | − 0·36 | 55·9 | +19·2 | 53 | +17 |
| | Donaghadee | 59 | 40 | 52·1 | 43·1 | 47·3 | − 0·4 | 37 | 0 | 2 | 0·16 | − 0·24 | * | * | * | * |
| | | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 64 | 39 | 56·1 | 43·5 | 49·4 | − 0·3 | 52 | 0 | 2 | 0·02 | − 0·41 | 61·3 | +17·9 | 58 | +16 |
| | Parsonstown | 60 | 31 | 58·1 | 38·6 | 47·8 | − 0·9 | 55 | 10 | 0 | − | − 0·47 | 47·4 | + 8·4 | 45 | + 7 |
| | Kilkenny | 61 | 32 | 55·3 | 41·0 | 47·7 | − 1·6 | 44 | 3 | 1 | 0·01 | − 0·46 | * | * | * | * |
| | Roche's Point | 56 | 40 | 54·3 | 46·0 | 49·9 | − 0·6 | 55 | 0 | 1 | 0·01 | − 0·71 | * | * | * | * |
| | Valencia | 63 | 44 | 58·7 | 47·0 | 52·5 | + 2·1 | 74 | 0 | 2 | 0·05 | − 0·79 | 58·3 | +15·0 | 56 | +13 |
| | Killarney | 62 | 37 | 59·1 | 44·9 | 51·6 | + 1·9 | 67 | 0 | 2 | 0·06 | ? | * | * | * | * |
| | Foynes | 60 | 34 | 56·2 | 39·7 | 47·5 | − 1·8 | 48 | 6 | 0 | − | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 57 | 45 | 56·1 | 47·0 | 51·3 | + 1·1 | 65 | 0 | 0 | − | − 0·38 | 56·7 | ? | 55 | ? |
| | Jersey | 59 | 43 | 56·6 | 45·3 | 50·6 | − 0·9 | 60 | 0 | 0 | − | − 0·36 | 64·4 | +14·0 | 63 | +12 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

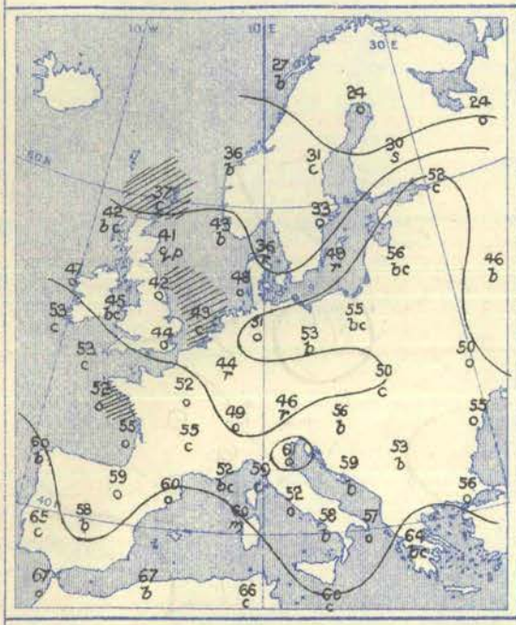
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 30th April.

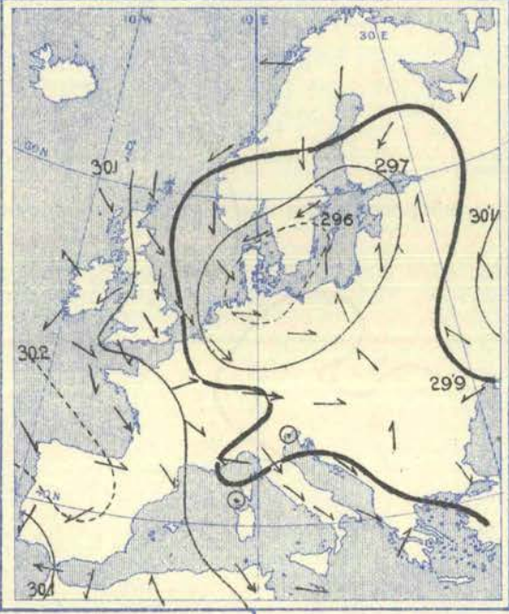
### Temperature and Weather. 8 a.m.

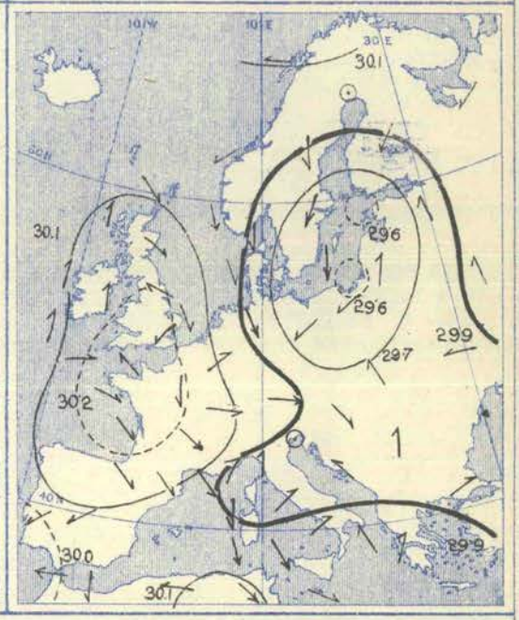


*Weather* in morning fair or fine over our Islands generally, but showery at Aberdeen. Cloudy or dull over the greater part of the Continent, with rain in the Netherlands and western and southern Germany, as well as at Skagen, Wisby and Helsingfors, and snow at Kuopio, Karlstad and Faeder. Fine in the west of Norway and also in Austria and Greece. Rain falling later in most parts of Germany and Austria, and at night in the western and northern parts of our Islands. Thunderstorm occurring at Nemours.

*Temperature* fallen in most places. Morning readings highest, 72° at Oporto, 69° at Barcelona, and 67° at Oran and Algiers; above 60° at many of the Mediterranean and Spanish coast stations. Lowest, 24° at Archangel and Haparanda, and 27° at Bodö; below 40° in most parts of northern Europe, and also in the Shetlands. Daily maxima below 50° at most of our own northern and eastern stations, and below 55° on all but our south-west coasts. Thermometer exceeding 70° in many parts of southern Europe, and reaching 85° at Madrid and 86° at Oporto.

### Barometer and Wind. 8 a.m. and 6 p.m.





*Wind* light to fresh from the Northward over the greater part of our Islands, and from the North-Westward in France and Italy; Westerly or South-Westerly in Germany; Southerly or South-Easterly in Russia; Easterly or North-Easterly in Scandinavia, and strong in force in the south. Easterly or North-Easterly over the Spanish Peninsula. Southerly breezes setting in later over the whole of Ireland and the west of Scotland.

*Barometer* highest, 30·2 ins. and upwards over the northern and central parts of Spain; 30·1 ins. and upwards in an anticyclone extending from the Atlantic over the whole of the Spanish Peninsula and the western parts of our Islands and France, and also in another system over central Russia. Lowest, 29·6 ins. and less in a depression over Denmark and the south of Sweden. Depression subsequently moving eastwards; new disturbance beginning to approach our own western coasts in evening.

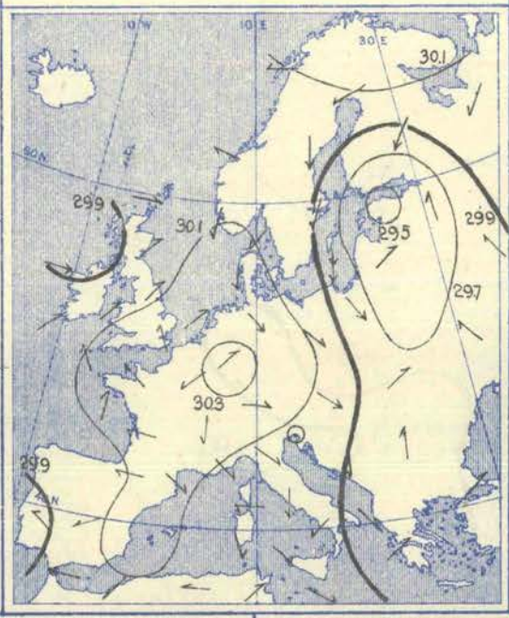
## Monday, 1st May.

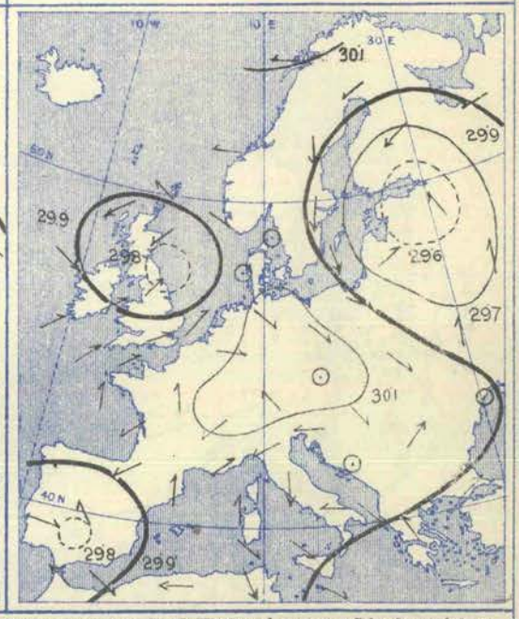
### Temperature and Weather. 8 a.m.

*Weather* in morning dull over the United Kingdom, with rain at several of our northern stations. Fine over the greater part of the Continent, but cloudy and unsettled in the more eastern countries, with rain at Vienna and Kharkov, and snow in the south of Sweden, as well as at Kuopio. Showers falling during day in many parts of our Islands; thunderstorm with heavy rain occurring at Shields, and thunder only at Donaghadee. Rain falling at most of the Russian stations.

*Temperature* risen slightly over western and southern Europe, fallen considerably over Austria, Germany and the Baltic. Morning readings highest, 78° at Oporto, 70° at Lisbon, and 68° at San Fernando; above 60° at several of the Mediterranean, Adriatic and Spanish coast stations. Lowest, 24° at Archangel and Kuopio, 26° at Haparanda, and 28° at Bodö; below 40° in most parts of Scandinavia and northern Russia, and also at Leith. Rising during day to 55° and upwards at many of the English and Irish stations, and to 60° at Parsonstown; exceeding 70° over the greater part of southern Europe and reaching 89° at Madrid.

### Barometer and Wind. 8 a.m. and 6 p.m.



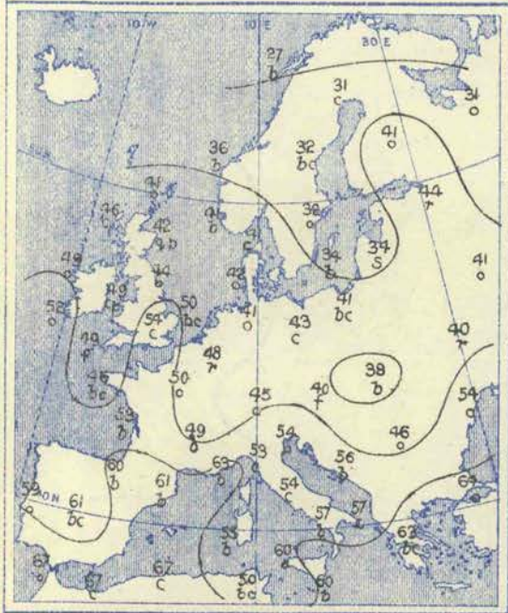


*Wind* light to moderate from the Southward or South-Westward over our Islands, and from the Eastward in the west of Norway. North-Easterly in Finland; Northerly in Sweden and Denmark, with a gale at Wisby; North-Westerly in Germany, Austria, Italy and the south of France; variable in the south of Russia. Easterly over the Spanish Peninsula and the west of France. Subsequently veering to the Westward in Ireland, and shifting to the Eastward or North-Eastward in Scotland.

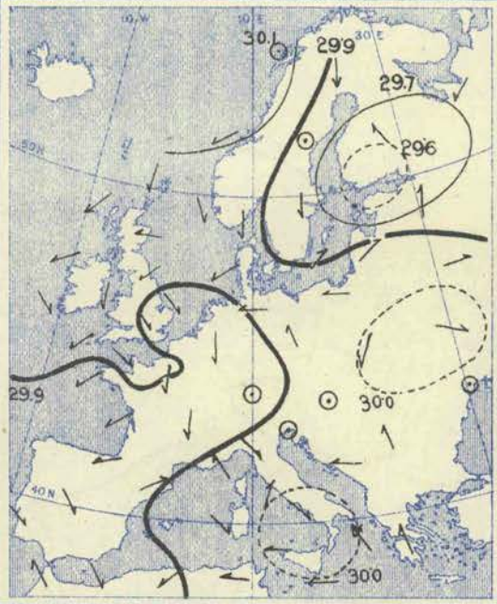
*Barometer* highest, 33·3 ins. and upwards over Belgium and the north-east of France; 30·2 ins. and upwards in an anticyclone covering nearly the whole of France, Belgium, western Germany and the south-east of England. Lowest, 29·5 ins. and less in a well-marked depression with its centre near Reval; 29·7 ins. or less in another disturbance over the extreme south of Russia; 29·9 ins. and less in a third with its centre off the north-west of Ireland. Depressions subsequently moving eastwards—the Irish disturbance to the north-east coasts of Great Britain.

## Tuesday, 2nd May.

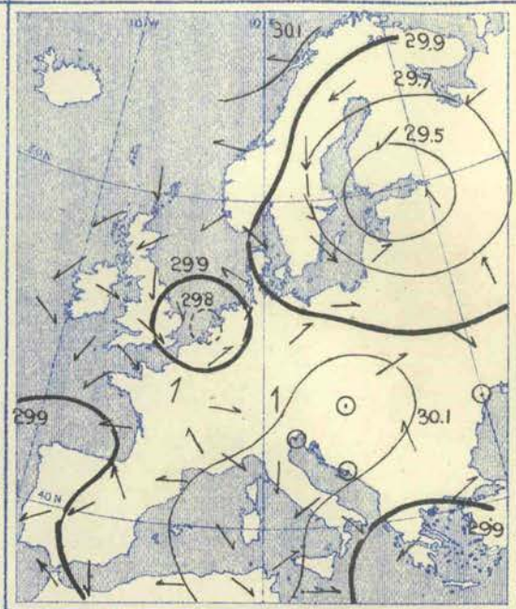
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull in our Islands, with showers at several of our more northern stations and fog at Scilly. Fine over southern Europe generally and also in Scandinavia; cloudy in other parts of the Continent, with rain at Brussels and Münster and also at St. Petersburg and Kiev; snow falling in Finland. Improvement taking place later in the north of our Islands, but a little rain falling inGermany; thunderstorm occurring at Biarritz.

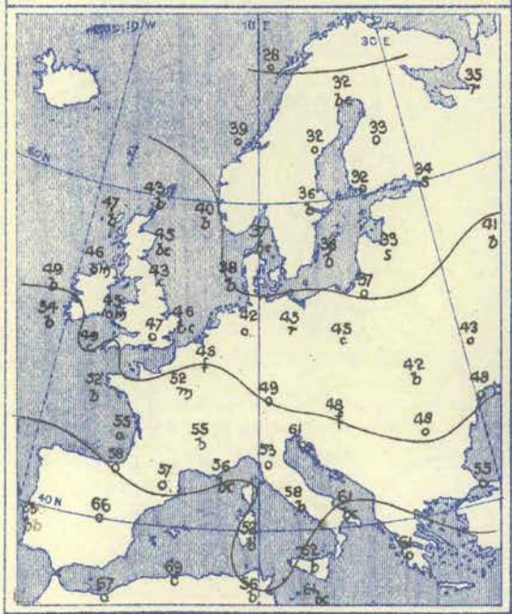
*Temperature* risen in most parts of western and northern Europe, fallen elsewhere. Morning readings highest 67° at Oran, Algiers, and San Fernando, and 64° at Nemours and Constantinople; slightly above 60° in several parts of Europe. Lowest 27° at Bodö, 28° at Uleaborg and Hangö, and 31° at Archangel and Haparanda; below 40° in most parts of Scandinavia and northern Russia. Daily maxima below 50° at many of our own northern stations, but thermometer rising to between 55° and 60° in the central and southern districts, and reaching 61° in London and at Oxford. Exceeding 70° in many parts of southern Europe and reaching 88° at Madrid.

*Wind* light to moderate from the Eastward or North-Eastward over Norway and the extreme north and north-west of our Islands, but from the North-Westward in all other parts of the United Kingdom; light from the Southward over central France and Germany. Strong from the Northward in Sweden, Westerly or North-Westerly over the Baltic, South-Westerly or Southerly over central and southern Russia. Easterly over Spain and the west and south of France, variable in Italy and Austria. Subsequently backing to the Westward or South-Westward over the eastern parts of the English Channel, no important change occurring elsewhere.

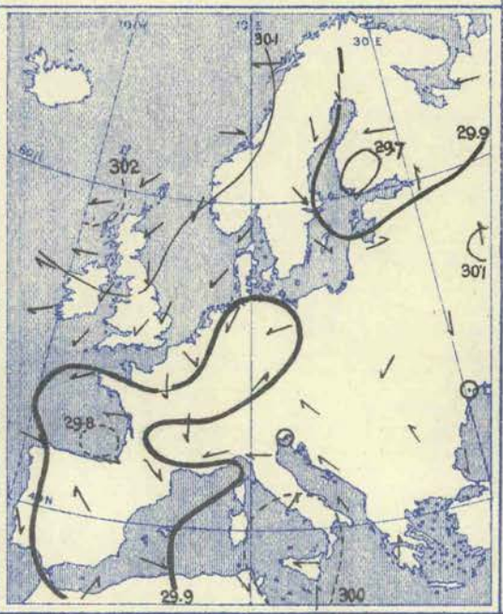
*Barometer* highest, 30·0 ins. and upwards in a large area lying to the northward of our Islands and also in another system over eastern Germany, Austria, Italy, and the western parts of the Mediterranean. Lowest 29·5 ins. and less, in a well-marked depression with its centre over the Gulf of Finland; 29·8 ins. and less in a small shallow disturbance over Holland. High pressure in north subsequently spreading southwards, depression over Holland moving south-eastwards.

## Wednesday, 3rd May.

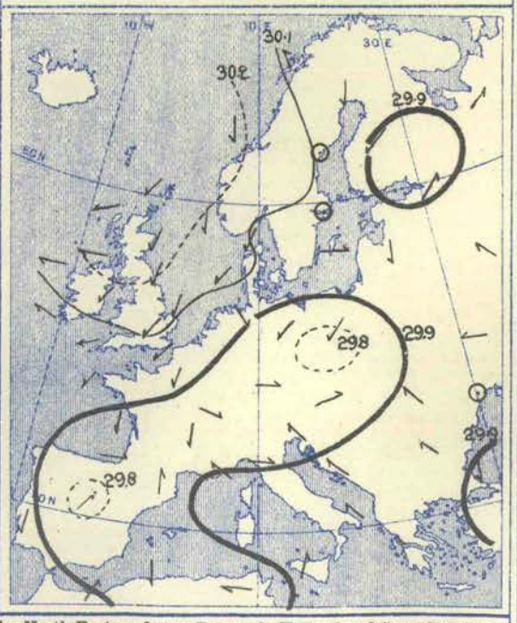
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over western and southern Europe as a whole, but dull over the central and southern parts of England, the west of France and the north of Spain; fog reported at some of the English Channel stations and also at Brussels. Dull over the greater part of Russia, Germany and Austria, with rain in several isolated places, and snow at St. Petersburg and Riga. Slight showers falling later on the north-east coast of England, but weather improving over our central and southern districts.

*Temperature* fallen over Ireland, England and the neighbouring parts of the Continent, but changed irregularly elsewhere. Morning readings highest 70° at Barcelona, 69° at Algiers and 68° at Oran and La Calle, above 60° at several of the Mediterranean, Adriatic and Spanish coast stations. Lowest 28° at Bodö and 32° at Uleaborg, Hernösand, Hangö and Helsingfors. Daily maxima below 50° on our own north-east coasts, thermometer exceeding 55° at many of our western and southern stations, exceeding 70° in many parts of southern Europe and reaching 86° at Madrid. Frost occurring over Great Britain at night.

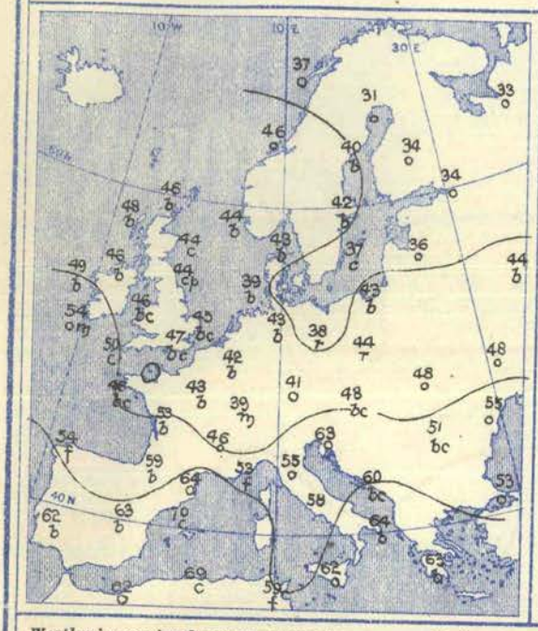
*Wind* light to moderate from the North-Eastward over Denmark, Holland and Great Britain, and from the Eastward in Ireland as well as in the west of France. Moderate to strong from the Northward or North-Westward in Sweden. Light and variable over southern and eastern Europe; cyclonic circulation of light breezes reported over Germany. No important change occurring over western Europe during day.

*Barometer* highest, 30·2 ins. and upwards in the Hebrides; 30·0 ins. and upwards in an anticyclone embracing a considerable portion of north-western Europe, and also in two other systems one lying over central Russia and the other over Italy. Lowest 29·7 ins. and less in a depression over Finland, 29·8 ins. and less in two shallow systems lying respectively over central Germany and over the southern part of the Bay of Biscay. Barometer rising over western Europe during day, anticyclone in north spreading slowly southwards.

## Thursday, 4th May.

### Temperature and Weather.

8 a.m.

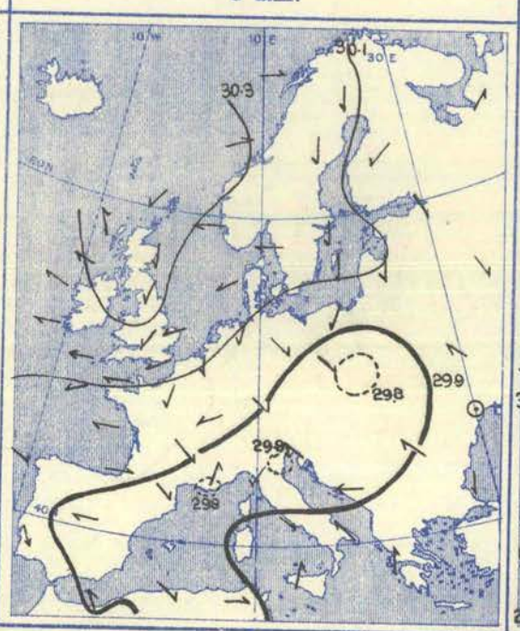


*Weather* in morning fine over western Europe generally, but cloudy and showery on the north-east coast of England. Dull in the west of Norway, and also over Russia, Germany, northern Italy and the south of France; fog reported in the extreme south of France, and rain at Berlin and Breslau. Fine over Austria, Greece and southern Italy. Rain falling later in the west of Norway and also in several parts of Austria and Italy.

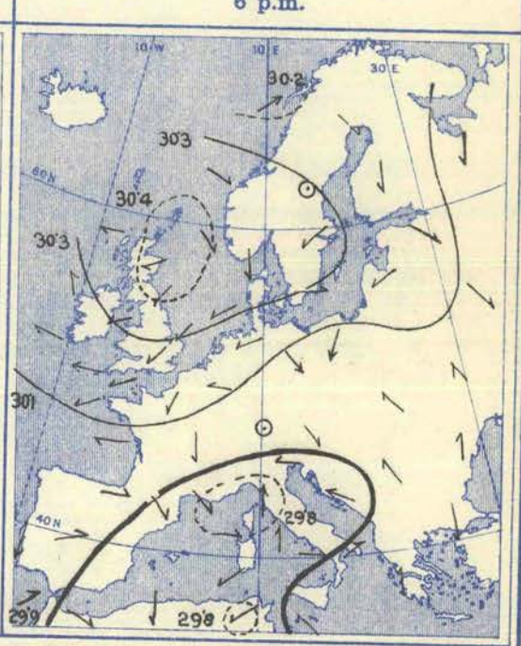
*Temperature* fallen in our Islands, France and Germany; risen in most other countries. Morning readings highest, 70° at Barcelona and 69° at Algiers and La Calle; above 60° in many parts of southern Europe. Lowest, 31° at Haparanda, 23° at Archangel, and 34° at Kuopio and St. Petersburg; lowest in our Islands, 42° at Nairn and Liverpool. Daily maxima below 50° at some of our northern and eastern stations, but thermometer exceeding 55° on our extreme western and southern coasts; reaching 70° or more at some stations in the west of France and in many parts of southern Europe, the highest reading of all being 86° at Madrid. Frost occurring over Great Britain at night.

### Barometer and Wind.

8 a.m.



6 p.m.



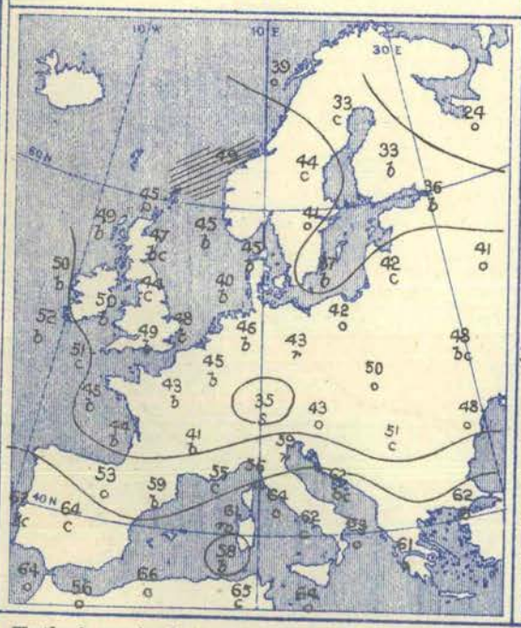
*Wind* light to moderate from the North-Eastward over Denmark, north Germany, the Netherlands, the north of France, and all but the extreme northern parts of Great Britain; Easterly or South-Easterly in Ireland. Northerly in Sweden and Finland; North-Westerly over eastern and southern Germany; variable over Austria, Italy and the south of Russia. Westerly or North-Westerly over the south of France and the greater part of the Spanish Peninsula. No important change occurring over western Europe later, but Southerly breezes setting in over Italy.

*Barometer* highest, 30·3 ins. and upwards over the west of Norway and the northern parts of our Islands; 30·1 ins. and upwards in an anticyclone covering the whole of north-western Europe. Lowest, 29·8 ins. and less in a depression over Poland. Anticyclone increasing gradually later both in size and height, and barometer rising over western Europe generally. Polish depression moving south-eastwards and filling up, but new disturbance forming over the Gulf of Genoa.

## Friday, 5th May.

### Temperature and Weather.

8 a.m.

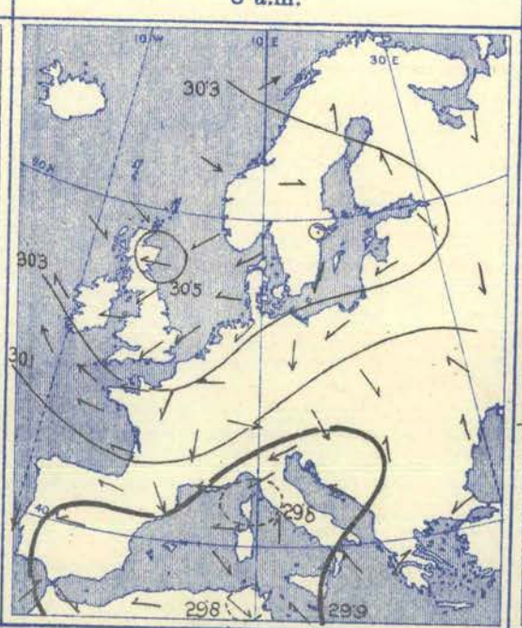


*Weather* in morning fine over the whole of western Europe. Cloudy or dull in Scandinavia and also over the eastern and southern parts of the Continent generally, with rain at Berlin, Trieste and Florence, and snow at Munich. Rain falling later at several of the German and Austrian stations—heavily at Buda Pesth. Aurora seen at Stornaway.

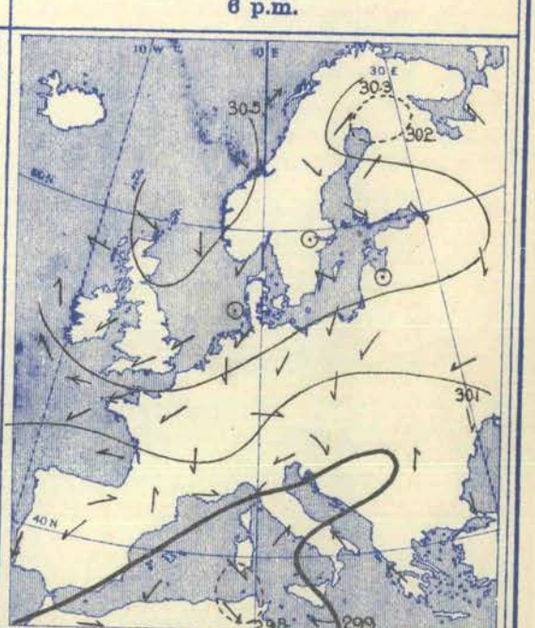
*Temperature* risen over north-western Europe, fallen in many of the central and southern countries. Morning readings highest, 66° at Oporto, Oran and Algiers, and 65° at La Calle; above 60° at several of the Mediterranean, Adriatic, and Spanish coast stations. Lowest, (1) 24° at Archangel, and 33° at Haparanda and Kuopio; (2) 35° at Munich and 37° at Belfort; lowest in our Islands 43° at Loughborough. Daily maxima below 55° in many parts of the United Kingdom, and very little above it even on our south and south-west coasts; thermometer exceeding 70° at some stations in Spain, Italy and the west and south of France, and reaching 81° at Madrid. Frost occurring in several parts of Great Britain at night.

### Barometer and Wind.

8 a.m.



6 p.m.

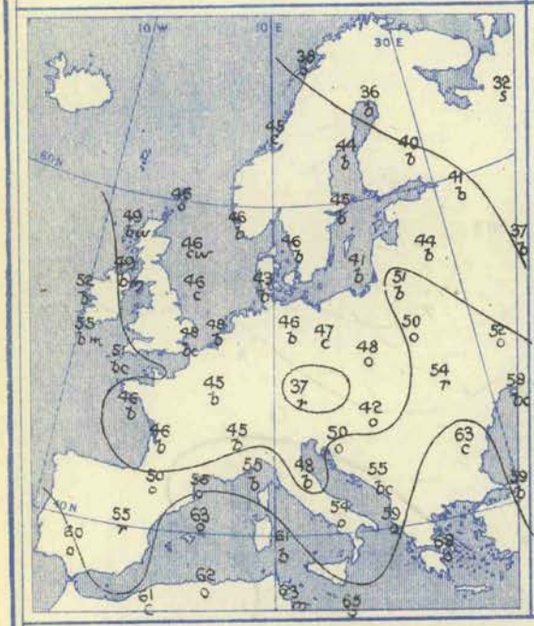


*Wind* light to moderate from the North-Eastward over England, and also over Denmark, the south of Scandinavia, north Germany, the Netherlands, and central France; moderate to fresh from the South-Eastward in Ireland; variable in the north of Scotland. South-Westerly or Westerly over the northern parts of Scandinavia; North-Westerly over south Germany and Austria. South-Easterly or Easterly over Italy and the Adriatic; Easterly over Spain and the west and south of France; Northerly to Westerly in Portugal. No important change occurring during day.

*Barometer* highest, 30·51 ins. at Aberdeen; 30·2 ins. and upwards in an anticyclone covering the whole of northern and north-western Europe. Lowest, 29·8 ins. and less in two small depressions, one lying over the Gulf of Genoa, and the other over the central part of the Adriatic. Slight fall of barometer taking place later over Great Britain and France, but general distribution of pressure remaining unchanged. Depressions in south partially filling up.

## Saturday, 6th May.

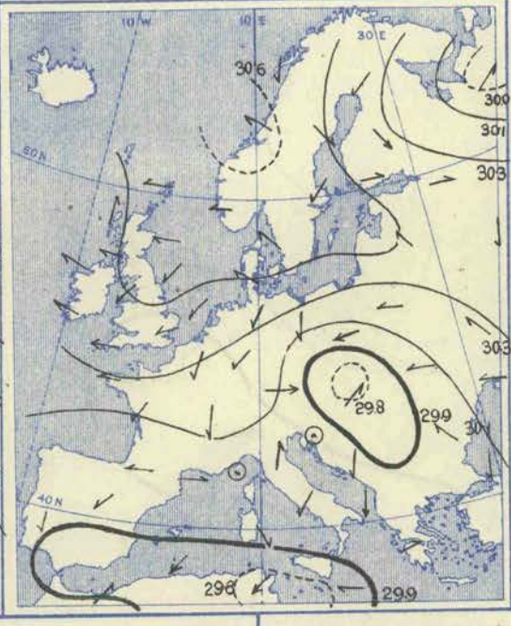
### Temperature and Weather. 8 a.m.



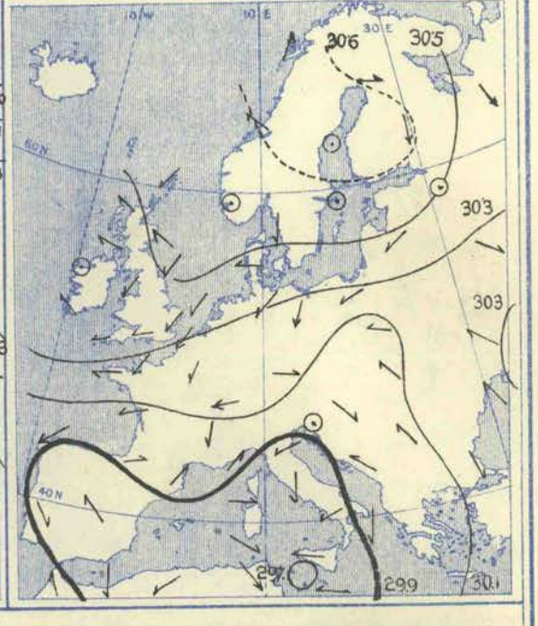
*Weather* in morning fine and bright over western and northern Europe generally, but cloudy or dull in the central countries, with rain in several places. Dull also over the Spanish Peninsula and southern Italy, with rain at Madrid. No important change occurring over Europe during day, but thunderstorm occurring at Laghouat at night.

*Temperature* risen a little in most countries, but fallen in Spain and Italy. Morning readings highest, 68° at Patras, 65° at Malta, 64° at Athens, and 63° at Barcelona, Oran and Tunis; above 55° at most of the Mediterranean, Adriatic and Spanish coast stations. Lowest, (1) 32° at Archangel, 36° at Haparanda, and 37° at Moscow; (2) 37° at Munich, and 38° at Vienna; lowest in our Islands, 45° at Nairn, Loughborough and Pembroke. Rising during day to between 55° and 60° in many parts of England and Ireland, and to 62° in London; exceeding 70° in several parts of southern Europe, and reaching 81° at Palermo. Ground frost occurring in many parts of the United Kingdom at night.

### Barometer and Wind. 8 a.m.



### 6 p.m.



*Wind* light to fresh from the North-Eastward over Germany, Denmark, the south of Scandinavia, the Netherlands, England, and the greater part of France and the Spanish Peninsula; South-Easterly in Ireland and the north of Scotland—North-Westerly or Westerly over Finland and the north of Scandinavia; variable over central Russia. South-Westerly or Westerly over Austria and south Germany; chiefly Northerly in Italy; variable in the extreme south of France. No decided change occurring over western Europe during day.

*Barometer* highest, 30·62 ins. at Christiansund; 30·1 ins. and upwards in an anticyclone embracing the whole of northern and north-western Europe. Lowest, 29·8 ins. and less in two depressions—one lying over northern Austria and the other over Tunis; 30·0 ins. and less in another disturbance over the extreme north of Russia. Slight fall of barometer taking place over western Europe during day but general distribution of pressure remaining unchanged.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟶⟶ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

## GENERAL NOTES.

At the beginning of the week the depression which had previously crossed our Islands, moved away eastwards to the Baltic and eventually north-eastwards to northern Russia, while an anticyclone advanced over western Europe from the Atlantic. The latter system soon moved on, however, to the Continent, and on the 1st of May a shallow depression advanced in an east-south-easterly direction across the more northern parts of the United Kingdom, the disturbance occasioning a little rain in most districts, but no material increase in the strength of the wind.

On the 2nd the depression moved south-eastwards to central Europe, and for the remainder of the week the weather in all the more western and northern countries was influenced by a large anticyclone which spread over from the northward. North-Easterly (Northerly to Easterly) winds and fine weather were therefore experienced very generally, but temperature was low for the time of year, with sharp night frosts in several parts of Great Britain.

Over central Europe the weather was affected for a time by the depression already noticed, while in the south the conditions were influenced by disturbances forming over various parts of the Mediterranean. In Germany, northern Italy and the south of France, rain was in fact somewhat frequent, and in south Germany snow was experienced towards the close of the week. On the 5th an off-shoot from one of the Mediterranean depressions moved northwards over Austria and occasioned heavy rain in several parts of that country.

## BRIGHT SUNSHINE Values for the Week, in addition to those found on page 104.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 66·0 | ? | 60 | ? | WATERGATE (Emsworth) | 57·7 | ? | 56 | ? |
| STRATHPEFFER SPA | 51·6 | +14·4 | 47 | +12 | BRIGHTON | 59·2 | +13·2 | 57 | +13 |
| EDINBURGH | 50·4 | +17·6 | 47 | +17 | BOGNOR | 54·8* | ? | 53* | ? |
| MORPETH | 46·9 | ? | 47 | ? | WORTHING | 68·3 | ? | 66 | ? |
| NEWCASTLE-ON-TYNE | 29·5 | ? | 28 | ? | EASTBOURNE | 56·8 | +11·2 | 55 | +11 |
| OSWALDKIRK (Yorkshire) | 38·5 | + 2·6 | 36 | + 2 | VENTNOR HOSPITAL | 62·2 | ? | 60 | ? |
| HOLLESLEY BAY | 62·1 | ? | 60 | ? | SOUTHPORT | 65·2 | ? | 62 | ? |
| SHEFFIELD | 35·6 | ? | 34 | ? | COLWYN BAY | 60·9 | ? | 58 | ? |
| WORKSOP | 44·4 | +10·1 | 42 | + 9 | ABERDOVEY | 68·5* | ? | 65* | ? |
| THURCASTON (Leicestershire) | 55·6 | +19·6 | 53 | +17 | TENBY | 63·6 | +15·6 | 61 | +13 |
| PLUMSTEAD COMMON | 44·3 | ? | 43 | ? | NEWQUAY | 55·8 | +10·5 | 54 | +10 |
| MARGATE | 51·8 | +11·8 | 50 | +12 | TORQUAY | 50·3* | + 5·3 | 49* | + 5 |
| WESTBOURNE (Emsworth) | 59·3* | +11·7 | 58* | +11 | GUERNSEY | 52·9* | + 0·6 | 52* | 0 |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD. LITH. 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 19.] *Third Series.* WEEK ENDING SATURDAY, MAY 13TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 110.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 68 | 29 | 55·4 | 39·7 | 47·1 | 0 (average) | 45 | + 7 | 6 | − 2 | 207 | + 6 | 596 | − 8 |
| | 1. SCOTLAND, EAST | 66 | 27 | 54·2 | 39·0 | 46·2 | 1 below | 42 | − 4 | 8 | 0 | 314 | − 22 | 647 | + 9 |
| | 2. ENGLAND, N.E. | 60 | 31 | 50·9 | 41·2 | 45·7 | 2 below | 29 | −16 | 2 | − 3 | 403 | + 78 | 450 | − 92 |
| | 3. ENGLAND, EAST | 67 | 38 | 57·8 | 43·9 | 50·4 | 1 above | 59 | 0 | 0 | − 5 | 538 | +112 | 421 | −186 |
| | 4. MIDLAND COUNTIES | 67 | 32 | 58·4 | 42·1 | 49·7 | 0 (average) | 54 | − 7 | 0 | − 6 | 541 | + 84 | 470 | −141 |
| | 5. ENGLAND SOUTH | 70 | 36 | 60·4 | 43·5 | 51·4 | 0 (average) | 66 | 0 | 0 | − 1 | 619 | +138 | 294 | −179 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 66 | 29 | 57·5 | 41·4 | 48·9 | 0 (average) | 51 | 0 | 2 | − 3 | 377* | + 14 | 408* | − 47 |
| | 7. ENGLAND, N.W. | 62 | 33 | 55·1 | 43·0 | 48·7 | 1 below | 47 | − 7 | 0 | − 4 | 471 | + 99 | 313 | −139 |
| | 8. ENGLAND, S.W. | 69 | 33 | 58·2 | 43·8 | 50·5 | 0 (average) | 60 | 0 | 0 | − 2 | 618 | +126 | 240 | −119 |
| | 9. IRELAND, NORTH | 70 | 31 | 56·6 | 42·3 | 49·1 | 0 (average) | 50 | − 3 | 0 | − 3 | 474 | + 37 | 323 | − 67 |
| | 10. IRELAND, SOUTH | 68 | 31 | 58·5 | 41·8 | 49·7 | 1 below | 55 | − 5 | 1 | − 1 | 665 | +110 | 245 | − 51 |
| | —CHANNEL ISLANDS | 66 | 45 | 58·8 | 48·3 | 53·3 | 1 above | 79 | +13 | 0 | 0 | 873 | +279 | 81 | − 67 |

### Rainfall.

| | DISTRICTS. (See p. 110.) | For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 3 | 2 | 4 less | 86 | − 3 | 18·4 | + 1·0 |
| | 1. SCOTLAND, EAST | 4 | 8 | 4 more | 82 | +13 | 12·7 | + 2·6 |
| | 2. ENGLAND, N.E. | 6 | 12 | 8 more | 75 | + 8 | 8·9 | + 1·0 |
| | 3. ENGLAND, EAST | 2 | 2 | 2 less | 67 | + 1 | 7·3 | − 0·3 |
| | 4. MIDLAND COUNTIES | 4 | 6 | 2 more | 68 | + 6 | 9·9 | + 1·2 |
| | 5. ENGLAND, SOUTH | 1 | 1 | 3 less | 59 | − 2 | 8·8 | − 0·5 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 5 | 8 | 2 more | 84 | + 9 | 19·3 | + 2·4 |
| | 7. ENGLAND, N.W. | 4 | 7 | 2 more | 78 | +10 | 13·1 | + 2·2 |
| | 8. ENGLAND, S.W. | 4 | 6 | 1 more | 75 | + 7 | 16·7 | + 3·8 |
| | 9. IRELAND, NORTH | 4 | 6 | 1 more | 91 | +12 | 13·9 | + 1·9 |
| | 10. IRELAND, SOUTH | 4 | 5 | 1 less | 77 | + 4 | 16·6 | + 2·9 |
| | — CHANNEL ISLANDS | 2 | 2 | 2 less | 70 | − 5 | 11·1 | 0·0 |

### Bright Sunshine.

| | DISTRICTS. (See p. 110.) | For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 41 | + 5 | 36 | + 2 | 427 | + 52 | 28 | + 3 |
| | 1. SCOTLAND, EAST | 33 | − 5 | 30 | − 5 | 440 | + 32 | 30 | + 2 |
| | 2. ENGLAND, N.E. | 27 | −10 | 25 | − 9 | 408 | + 9 | 28 | 0 |
| | 3. ENGLAND, EAST | 46 | − 3 | 44 | − 3 | 572 | + 81 | 37 | + 5 |
| | 4. MIDLAND COUNTIES | 35 | − 2 | 33 | − 3 | 476 | + 72 | 34 | + 5 |
| | 5. ENGLAND, SOUTH | 58 | +12 | 55 | +11 | 579 | + 96 | 39 | + 6 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 36 | − 5 | 33 | − 6 | 427 | + 8 | 29 | 0 |
| | 7. ENGLAND, N.W. | 35 | − 3 | 32 | − 5 | 485 | + 72 | 33 | + 5 |
| | 8. ENGLAND, S.W. | 40 | − 7 | 38 | − 7 | 548 | + 27 | 37 | + 2 |
| | 9. IRELAND, NORTH | 39 | 0 | 36 | 0 | 471 | + 63 | 32 | + 4 |
| | 10. IRELAND, SOUTH | 41 | − 2 | 39 | − 2 | 519 | + 39 | 35 | + 2 |
| | — CHANNEL ISLANDS | 56 | + 6 | 53 | + 4 | 618 | + 63 | 44 | + 5 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was fine and dry in all parts of the Kingdom during the earlier days of the period, but after Tuesday the conditions became unsettled, and during the remainder of the week showers or steady rain, occasionally accompanied by thunder and lightning, were experienced in nearly all districts. Some of our southern and south-eastern stations, however, had little or no rain.

*Temperature* did not differ materially from the mean value for the time of year. The highest of the maxima, which were registered on the 8th in Ireland and Scotland and on the 11th over England, ranged from 70° in Ireland N. and England S., and 69° in England S.W., to 62° in England N.W., and to 60° in England N.E. During Friday and Saturday most of the maxima recorded in the north and north-west were but little above 50°, and in some instances they were below that value. The lowest of the minima occurred, as a rule, either on the 7th or 8th, and varied from 27° in Scotland E., 29° in Scotland N. and W., and 31° in England N.E. and over Ireland, to 38° in England E., and to 45° in the Channel Islands.

*Rainfall* was more than the mean in most districts, but considerably less in Scotland N., England S. and E., and the Channel Islands, and slightly less in Ireland S. In Scotland E. the fall was twice, and in England N.E. three times, as much as the mean value.

*Bright Sunshine* was less than the mean in most districts, but exceeded it in Scotland N., England S., and the Channel Islands, and just equalled it in Ireland N. The percentage of the possible duration ranged from 55 in England S., and 53 in the Channel Islands, to 30 in Scotland E., and 25 in England N.E.

*Barometer and Wind.*—At the commencement of the week an anticyclonic ridge extended from Scandinavia over the whole of our Islands, and the winds varied from North-East in the east and south, to South-East and South in the west and north. By Tuesday, however, a depression had begun to spread over our southern and eastern districts from Germany, and from this time the distribution of pressure over the United Kingdom gradually became cyclonic and complex, with North-Easterly to North-Westerly winds in the north and variable or light South-Westerly airs in the south-east and south.

207 | 90 Wy. & S., Ltd
613 | 70 5 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 109 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Rainfall. Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 53 | 37 | 49·9 | 40·6 | 45·0 | + 0·5 | 27 | 4 | 0 | — | - 0·40 | * | * | * | * |
| | Stornoway | 64 | 35 | 55·7 | 40·4 | 47·6 | + 1·4 | 46 | 4 | 3 | 0·11 | - 0·44 | 47·8 | + 6·5 | 42 | + 5 |
| | Wick | 55 | 30 | 53·3 | 41·0 | 46·8 | + 0·3 | 38 | 3 | 4 | 0·06 | - 0·35 | * | * | * | * |
| | Lairg § | 68 | 29 | 50·3 | 35·9 | 47·0 | + 0·6 | 61 | 17 | 2 | 0·28 | - 0·21 | * | * | * | * |
| | Glencarron § | 66 | 36 | 58·0 | 40·3 | 48·6 | + 1·6 | 53 | 5 | 3 | 0·14 | - 0·84 | * | * | * | * |
| | Fort Augustus § | 58 | 32 | 53·8 | 37·7 | 45·3 | - 3·5 | 41 | 12 | 3 | 0·20 | - 0·30 | 31·2 | + 3·3 | 28 | + 1 |
| | Fort William § | 66 | 36 | 57·5 | 41·9 | 49·2 | 0·0 | 51 | 0 | 5 | 0·38 | - 0·42 | 46·5 | + 8·8 | 42 | + 7 |
| 1. SCOTLAND E. | Nairn | 59 | 30 | 53·4 | 38·3 | 45·4 | - 2·8 | 39 | 10 | 3 | 0·35 | - 0·01 | * | * | * | * |
| | Aberdeen | 55 | 33 | 51·9 | 41·3 | 46·3 | - 0·9 | 33 | 2 | 3 | 0·63 | + 0·19 | 36·7 | - 4·3 | 33 | - 4 |
| | Braemar § | 64 | 27 | 57·3 | 35·2 | 45·6 | + 0·9 | 54 | 19 | 3 | 0·48 | - 0·04 | 43·8† | + 5·9† | 39† | + 4† |
| | Ochtertyre § | 66 | 29 | 60·4 | 39·6 | 49·4 | + 0·7 | 62 | 7 | 4 | 0·87 | + 0·37 | * | * | * | * |
| | Leith | 56 | 35 | 52·3 | 40·9 | 46·3 | - 2·7 | 35 | 3 | 4 | 0·97 | + 0·64 | * | * | * | * |
| | Marchmont § | 57 | 31 | 50·1 | 38·7 | 44·1 | - 2·9 | 29 | 9 | 5 | 1·57 | + 1·05 | 27·3 | -11·2 | 25 | -12 |
| 2. ENGLAND, N.E. | Alnwick Castle | 60 | 31 | 55·1 | 39·6 | 46·9 | + 0·3 | 44 | 7 | 5 | 0·68 | + 0·23 | * | * | * | * |
| | Durham | 59 | 31 | 50·9 | 39·3 | 44·8 | - 2·8 | 31 | 8 | 6 | 1·61 | + 1·21 | 25·3 | -10·9 | 23 | -10 |
| | Shields | 52 | 37 | 48·6 | 41·0 | 44·6 | - 2·6 | 22 | 3 | 6 | 1·63 | + 1·26 | * | * | * | * |
| | Scarborough ℳ | 54 | 37 | 49·6 | 41·3 | 45·5 | - 2·6 | 25 | 1 | 6 | 1·53 | + 1·11 | ? | ? | ? | ? |
| | York | | | | | | | | | | | | | | | |
| | Spurn Head | 53 | 42 | 50·1 | 44·1 | 46·9 | - 1·3 | 34 | 0 | 6 | 0·64 | + 0·32 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 63 | 39 | 56·9 | 43·9 | 50·0 | + 0·5 | 56 | 0 | 4 | 0·42 | + 0·02 | 39·4 | - 5·1 | 37 | - 5 |
| | Yarmouth | 57 | 43 | 53·6 | 45·0 | 49·1 | + 0·4 | 50 | 0 | 2 | 0·22 | - 0·16 | * | * | * | * |
| | Geldeston | 67 | 38 | 60·2 | 43·3 | 51·2 | + 1·7 | 64 | 0 | 2 | 0·21 | - 0·14 | 37·6 | - 9·4 | 35 | -10 |
| | Cambridge | | | | | | | | | | | | | | | |
| | Felixstowe | 62 | 39 | 58·0 | 44·3 | 50·7 | + 1·2 | 61 | 0 | 2 | 0·13 | ? | 58·4 | ? | 55 | ? |
| | Rothamsted | 65 | 38 | 60·2 | 42·9 | 51·0 | + 1·3 | 63 | 0 | 1 | 0·03 | - 0·45 | 46·5 | + 4·7 | 44 | + 5 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 64 | 32 | 56·1 | 40·9 | 48·0 | - 2·5 | 47 | 3 | 5 | 0·71 | + 0·31 | * | * | * | * |
| | Loughborough | 66 | 36 | 58·1 | 42·6 | 49·9 | - 1·2 | 55 | 0 | 4 | 0·51 | + 0·11 | * | * | * | * |
| | Stamford (Duddington) | 61 | 36 | 58·1 | 42·9 | 50·0 | - 0·5 | 56 | 0 | 4 | 0·59 | + 0·14 | * | * | * | * |
| | Cheadle ℳ | 63 | 36 | 56·0 | 41·9 | 48·5 | 0·0 | 46 | 0 | 4 | 0·53 | + 0·05 | * | * | * | * |
| | Shirley (near Solihull) | 64 | 35 | 58·7 | 42·0 | 49·9 | - 0·4 | 55 | 0 | 5 | 0·35 | ? | * | * | * | * |
| | Churchstoke ℳ | | | | | | | | | | | | | | | |
| | Hereford ℳ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 65 | 35 | 60·0 | 40·7 | 49·8 | + 0·5 | 60 | 4 | 2 | 1·42 | + 0·98 | 47·0 | + 3·5 | 44 | + 3 |
| | Oxford | 67 | 38 | 61·6 | 43·7 | 52·1 | + 1·4 | 71 | 0 | 3 | 0·20 | - 0·18 | 46·4 | + 4·5 | 44 | + 4 |
| 5. ENGLAND, S. | London | 68 | 39 | 63·6 | 43·0 | 52·7 | + 0·6 | 75 | 0 | 1 | 0·01 | - 0·37 | 42·3† | + 4·1† | 40† | + 4† |
| | Cranley ℳ | | | | | | | | | | | | * | * | * | * |
| | Dungeness | 63 | 41 | 58·6 | 43·9 | 50·8 | +0·3 | 62 | 0 | 2 | 0·10 | - 0·22 | * | * | * | * |
| | Hastings (St. Leonards) | 62 | 40 | 57·2 | 43·8 | 50·1 | - 0·8 | 57 | 0 | 3 | 0·10 | - 0·25 | 69·0 | +18·8 | 65 | +17 |
| | Southampton | 70 | 38 | 63·6 | 43·3 | 52·8 | + 0·7 | 76 | 0 | 0 | — | - 0·40 | 64·3 | +17·8 | 61 | +16 |
| | Hurst Castle | 66 | 38 | 59·7 | 44·7 | 51·8 | + 0·6 | 69 | 0 | 0 | — | - 0·34 | * | * | * | * |
| | Shaftesbury ℳ | 64 | 36 | 59·7 | 42·0 | 50·3 | + 0·6 | 58 | 0 | 2 | 0·20 | - 0·35 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 66 | 40 | 60·1 | 42·8 | 50·9 | + 1·4 | 62 | 0 | 5 | 0·89 | + 0·09 | * | * | * | * |
| | Glasgow | 61 | 37 | 56·6 | 42·1 | 48·9 | + 0·4 | 48 | 0 | 4 | 0·73 | + 0·28 | 26·1 | - 8·4 | 24 | - 8 |
| | Glenlee § | 65 | 29 | 58·4 | 38·6 | 47·9 | - 0·4 | 56 | 10 | 5 | 0·64 | + 0·05 | * | * | * | * |
| | Douglas (Isle of Man) | 66 | 35 | 54·7 | 42·1 | 48·0 | - 0·9 | 42 | 0 | 4 | 0·95 | + 0·53 | 46·0 | - 1·8 | 42 | - 3 |
| 7. ENGLAND, N.W. | Stonyhurst | 61 | 36 | 55·2 | 42·9 | 48·4 | - 0·7 | 45 | 0 | 5 | 0·76 | + 0·24 | 38·1 | - 1·9 | 35 | - 3 |
| | Blackpool ℳ | 62 | 33 | 56·8 | 40·6 | 48·2 | - 1·5 | 49 | 4 | 4 | 0·58 | + 0·19 | 28·8 | -11·2 | 26 | -13 |
| | Manchester (Prestwich) | 60 | 36 | 54·9 | 42·1 | 48·1 | - 0·8 | 43 | 0 | 4 | 0·61 | + 0·13 | 28·7 | ? | 26 | ? |
| | Liverpool Obsy. (Bidston) | 61 | 38 | 56·7 | 43·4 | 49·7 | - 1·0 | 54 | 0 | 4 | 0·85 | + 0·51 | 31·7 | ? | 30 | ? |
| | Llandudno ℳ | 59 | 39 | 54·0 | 44·3 | 48·9 | - 1·8 | 48 | 0 | 3 | 0·53 | + 0·15 | 42·8 | + 2·0 | 40 | + 1 |
| | Holyhead | 55 | 41 | 52·9 | 44·7 | 48·6 | - 1·4 | 46 | 0 | 3 | 0·61 | + 0·23 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 69 | 33 | 61·1 | 40·9 | 50·4 | + 0·3 | 63 | 3 | 6 | 0·61 | + 0·06 | * | * | * | * |
| | Pembroke | 62 | 42 | 54·7 | 45·7 | 49·9 | + 0·5 | 55 | 0 | 5 | 0·47 | + 0·09 | 41·1 | - 6·9 | 39 | - 6 |
| | Clifton | 67 | 37 | 60·9 | 43·4 | 51·6 | + 1·4 | 67 | 0 | 2 | 0·10 | - 0·38 | * | * | * | * |
| | Arlington (N. Devon) | 63 | 38 | 57·9 | 41·1 | 49·0 | - 0·5 | 53 | 3 | 5 | 1·00 | + 0·44 | * | * | * | * |
| | Cullompton ℳ | 66 | 37 | 60·4 | 43·5 | 51·4 | + 0·4 | 66 | 0 | 4 | 1·00 | + 0·48 | 40·1 | - 1·9 | 38 | - 4 |
| | Falmouth | 61 | 42 | 57·0 | 45·4 | 50·7 | - 0·3 | 61 | 0 | 3 | 0·12 | - 0·48 | 41·1 | - 7·9 | 39 | - 8 |
| | Plymouth | 61 | 41 | 57·0 | 45·6 | 51·0 | - 1·2 | 63 | 0 | 4 | 0·25 | - 0·23 | 38·6 | - 7·8 | 37 | - 8 |
| | Prawle Point | 66 | 42 | 56·7 | 44·4 | 50·2 | + 0·4 | 57 | 0 | 3 | 1·11 | + 0·81 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 53 | 40 | 51·9 | 45·4 | 48·5 | - 0·4 | 46 | 0 | 5 | 0·36 | ? | * | * | * | * |
| | Londonderry | 70 | 36 | 60·5 | 42·5 | 51·0 | + 0·7 | 63 | 0 | 4 | 0·95 | + 0·50 | * | * | * | * |
| | Edenfel (Omagh) | 66 | 34 | 58·3 | 40·4 | 48·8 | + 0·5 | 54 | 4 | 4 | 0·72 | + 0·22 | * | * | * | * |
| | Belmullet | 64 | 41 | 55·9 | 45·3 | 50·3 | + 0·3 | 58 | 0 | 5 | 0·16 | - 0·36 | * | * | * | * |
| | Markree Castle | 63 | 31 | 58·1 | 38·9 | 47·9 | - 0·6 | 54 | 9 | 4 | 0·52 | + 0·01 | 44·4 | + 4·4 | 41 | +3 |
| | Armagh | 61 | 33 | 57·9 | 40·3 | 48·6 | - 0·3 | 53 | 5 | 3 | 0·63 | + 0·14 | 34·2 | - 4·1 | 31 | -5 |
| | Donaghadee | 58 | 38 | 53·6 | 43·6 | 48·3 | - 0·4 | 44 | 0 | 4 | 0·86 | + 0·41 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 59 | 41 | 56·9 | 44·0 | 50·1 | - 0·8 | 57 | 0 | 5 | 0·61 | + 0·14 | 36·7 | - 8·5 | 34 | -9 |
| | Parsonstown | 66 | 31 | 60·4 | 36·9 | 48·0 | - 1·8 | 63 | 14 | 5 | 0·44 | - 0·06 | 34·3 | - 5·7 | 32 | -6 |
| | Kilkenny | 68 | 32 | 58·7 | 41·0 | 49·3 | - 1·0 | 55 | 3 | 3 | 0·31 | - 0·17 | * | * | * | * |
| | Roche's Point | 56 | 40 | 55·3 | 45·4 | 50·1 | - 1·4 | 57 | 0 | 5 | 1·32 | + 0·62 | * | * | * | * |
| | Valencia | 63 | 35 | 58·4 | 43·1 | 50·3 | - 1·1 | 58 | 0 | 4 | 0·30 | - 0·48 | 52·5 | + 7·6 | 50 | +7 |
| | Killarney | 64 | 31 | 59·3 | 40·4 | 49·3 | - 1·5 | 58 | 4 | 3 | 0·29 | ? | * | * | * | * |
| | Foynes | 65 | 34 | 60·5 | 41·7 | 50·5 | + 0·2 | 61 | 1 | 4 | 0·29 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 60 | 46 | 56·9 | 48·7 | 52·6 | + 1·3 | 74 | 0 | 3 | 0·28 | - 0·09 | 46·4 | ? | 44 | ? |
| | Jersey | 66 | 45 | 60·6 | 47·9 | 53·9 | + 1·4 | 83 | 0 | 1 | 0·13 | - 0·25 | 59·6 | + 6·6 | 57 | +5 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

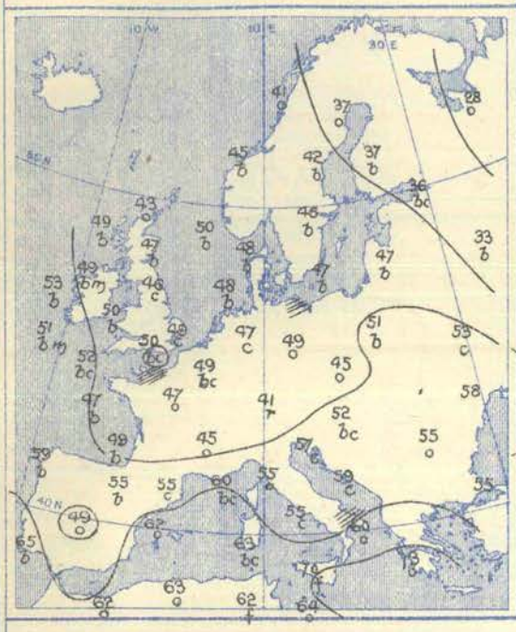
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 7th May.

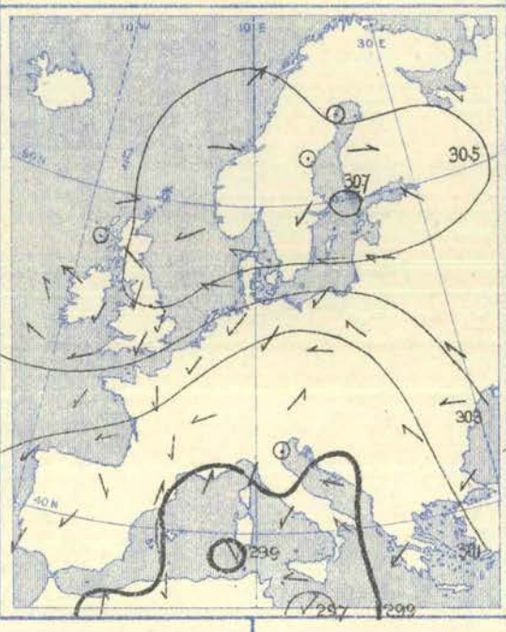
### Temperature and Weather.

8 a.m.

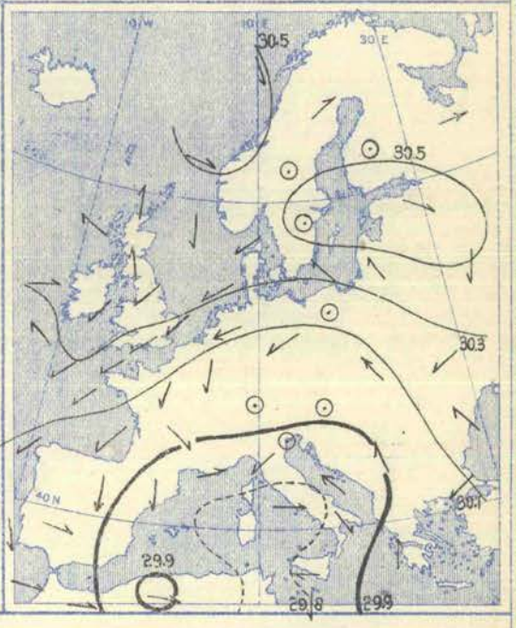


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* still very fine over northern Europe, the British Islands and their neighbourhood; less settled over Germany and some parts of France. Very much sunshine all over our Islands and France during the day, but showers in several parts of Germany and France.

*Temperature* in morning highest, 73° at Patras, 70° at Palermo, 64° at Malta, 63° at Algiers and San Fernando, 65° at Portugal, 60° at Nice; 52° to 50° on our south-west coasts, 50° at Holyhead. Lowest, 28° at Archangel, 33° at Moscow, 36° at St. Petersburg, 37° at Haparanda, 43° at Sumburgh Head, 47° at Aberdeen and Spurn Head. Rising later to 63° at Parsonstown, to 64° in London, 62° at Brussels, 73° at Lorient and Perpignan, 72° at Marseilles, 79° at Palermo, and to 77° at La Calle.

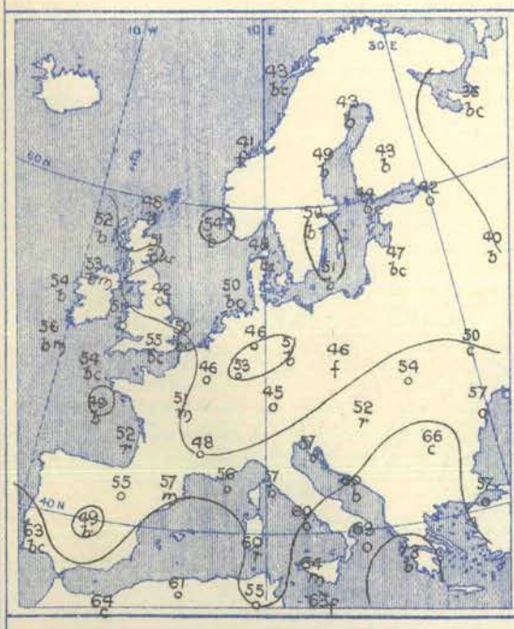
*Wind* was (1) Easterly over the Baltic, North-Easterly over the North Sea, the Channel, and Bay of Biscay, but from South-East in Ireland, and from South-West in the north-west of Norway; (2) light, but cyclonic and variable, over the Mediterranean and southern countries of Europe. No very decided change later, but local variations beginning to appear over the south-west of England.

*Barometer* highest, 30·6 ins. and more over Finland and central parts of Sweden; and exceeding 30·4 ins. all over northern Europe, Scotland, and Ireland. Lowest, 29·67 ins. over Malta, and below 29·9 ins. over all the Mediterranean. Local disturbances appearing over the south-west of England later.

## Monday, 8th May.

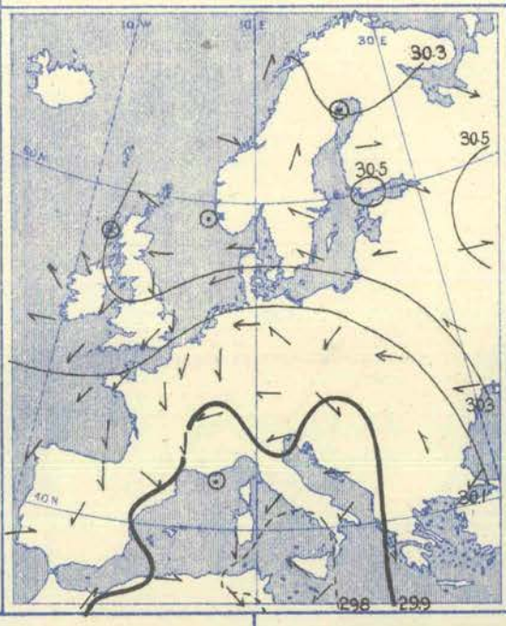
### Temperature and Weather.

8 a.m.

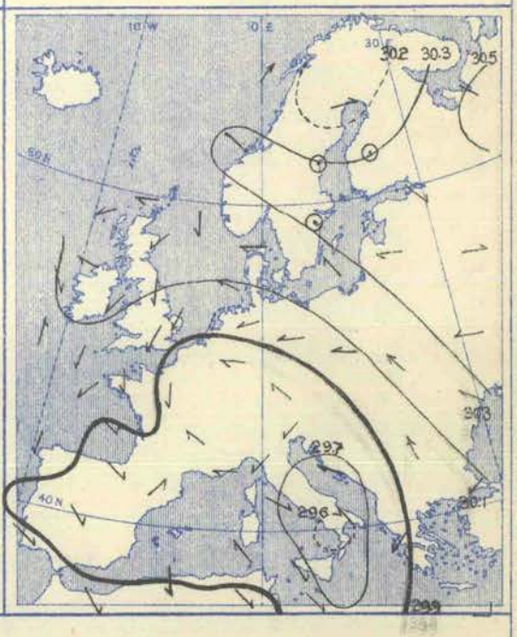


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning still fine and bright over northern Europe and the British Islands, dull and unsettled over central and southern Europe, rainy at the Helder. Rain later along our eastern coasts, and slight showers in many parts of France, the south and east of England and in Denmark. Solar halo at Spurn Head. Much sunshine in our southern and western districts.

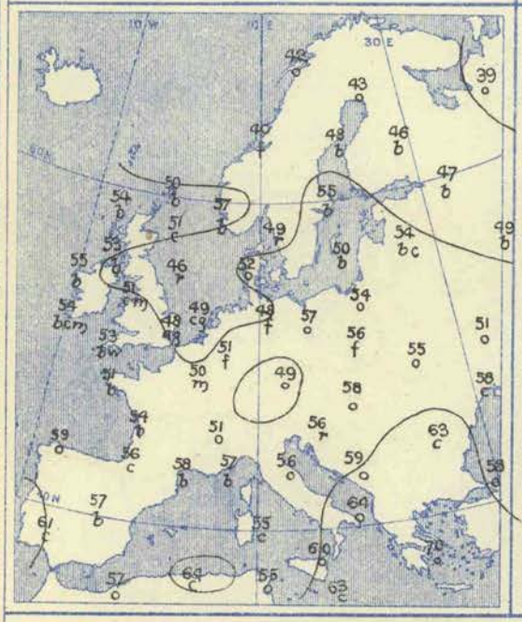
*Temperature* in morning low over southern Europe. The highest readings were 73° at Patras, only a little above 60° on the Algerian and Tunisian coasts; 55° to 49° in the west and north-west of France, 56° to 53° in the west and south of our Islands, 54° at Skudesnaes. Lowest, 36° at Archangel, 39° at Uleaborg, 43° at Haparanda and Bodö, 47° at Karlstad. Rising later to between 60° and 66° in many parts of our Islands to 62° at Paris, 68° at Berlin, and 72° at Lorient, falling again suddenly as the rain came on.

*Wind* Easterly over the Baltic and Denmark, North-Easterly over Great Britain, Northerly over the Bay of Biscay; light and variable over the Mediterranean and southern Europe. Blowing strongly and in a gusty way in the east of England as the day advanced. Shifting to North-East (from South-East and South) on our extreme west and north-west coasts.

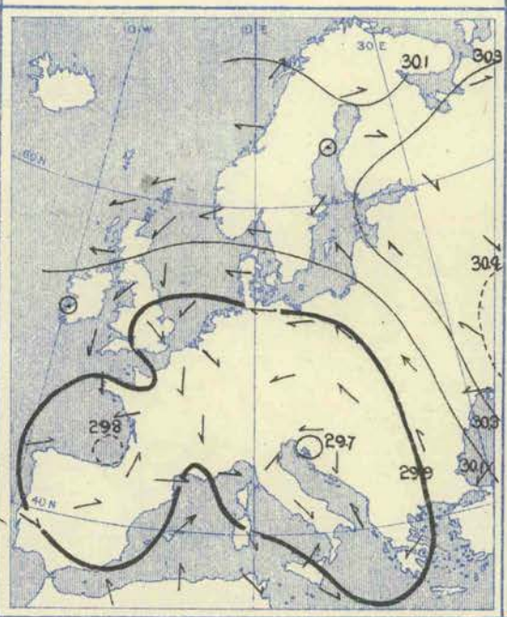
*Barometer* highest, 30·54 ins. at Moscow, 30·51 ins. at Helsingfors, and exceeding 30·3 ins. over northern Europe and Scotland. Lowest about 29·8 ins. over the Mediterranean, and below 29·9 ins. over the south-east of France. Gradients moderate over the North Sea, England, and the north of France. Falling later over our Islands and France generally.

## Tuesday, 9th May.

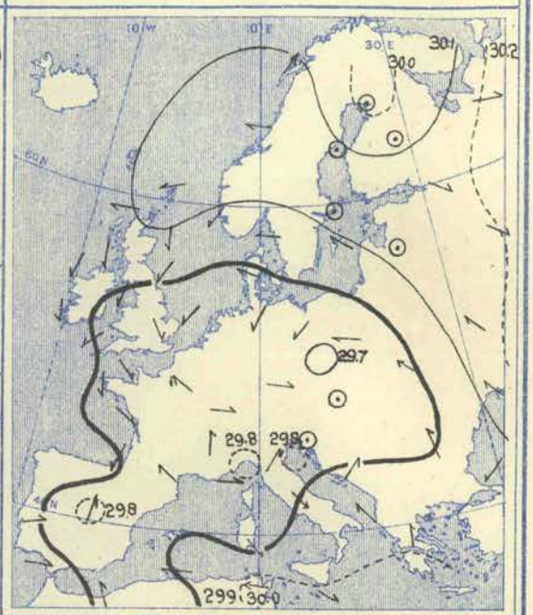
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the greater part of Scandinavia, over Scotland and Ireland; cloudy and gloomy and not settled over England, with rain in several places; fine over France and the Baltic. A good deal of rain later at some of our western stations and in some parts of Germany, smaller quantities in the south of France and Spain. Thunder and lightning in Liverpool and at Holyhead.

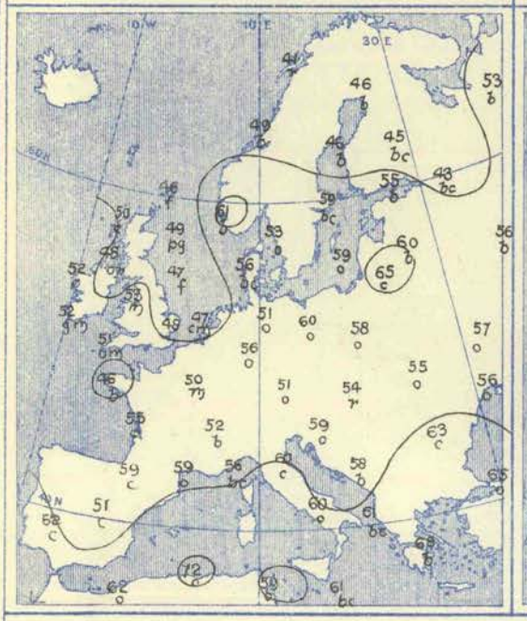
*Temperature* little changed in our Islands, but inclined to rise over Germany and France. Morning readings highest, 64° at Algiers and Brindisi, 63° at Malta, 59° at Perpignan and Corunna, 54° to 50° along our extreme west and south coasts; 57° at Berlin, 58° at Breslau. Lowest, 39° at Archangel, 40° at Christiansund and 42° at Bodö. Rising later to 75° at Brindisi and Palermo, to 70° in some parts of Germany, to 60° and more at a few of our own southern and western stations.

*Wind* was (1) South-Westerly over Lapland; (2) North-Easterly over the southern parts of Europe, over Germany, and the northern and western parts of our Islands; very variable over southern Europe, but strong South-Westerly (locally), at Palma, South-Easterly over Hungary and Poland. Becoming South-Westerly over the English Channel later, and variable over France.

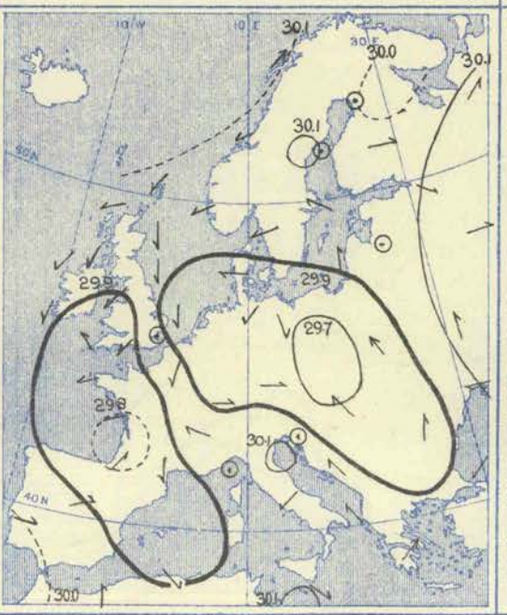
*Barometer* highest, 30·4 ins. and more to 30·3 ins. over Russia; 30·2 ins. and more over the southern half of Scandinavia; and exceeding 30·0 ins. over Scotland and Ireland. Lowest, generally below 29·9 ins. over France and the north-east of Spain, and as low as 29·7 ins. at the northern extremity of the Adriatic. The low-pressure area spreading very slowly to the northward later; barometer falling slowly over the northern half of Europe.

## Wednesday, 10th May.

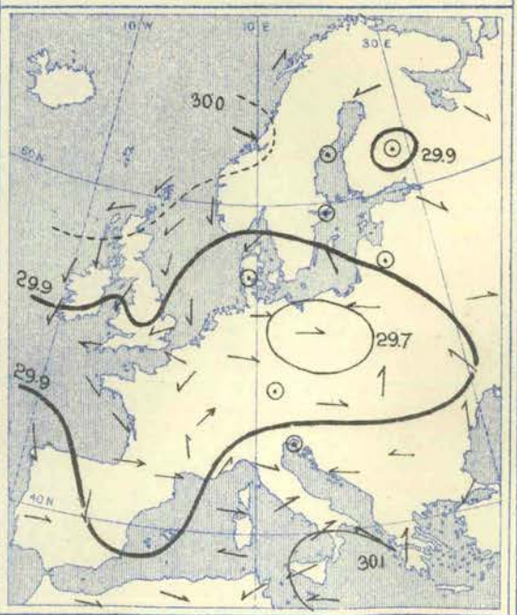
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning still fine over Russia and the greater part of northern Europe, and over some parts of Scotland; more or less changeable elsewhere, with occasional showers; lightning at Jersey and Biarritz later, showers in many parts of our Islands, and no less than 1·65 ins. of rain at Berlin, and a considerable fall in the south of France.

*Temperature* highest, 68° at Athens, Patras and Algiers, 59° to 55° in the south-west and south of France, 53° to 50° on extreme western and southern coasts; 60° at Berlin, and 58° to 54° over central Europe and the south of Scandinavia. Lowest, 41° at Bodö, 45° at Loughborough, 46° at Haparanda, Sumburgh Head and Spurn Head, 47° at Yarmouth. Rising later to 53° at Loughborough, 58° at Parsonstown and Liverpool, 60° in London, 66° at Jersey and Wiesbaden, 69° at Paris, and 75° at Perpignan.

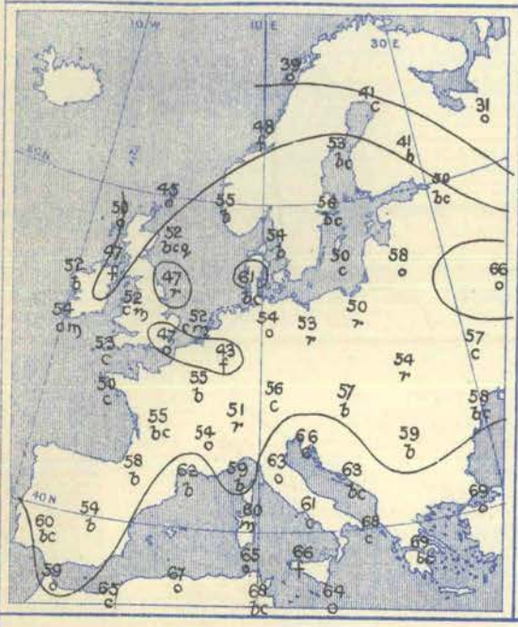
*Wind* South-Westerly at Bodö, but North-Easterly and light over the greater part of northern Europe, Scotland and Ireland. Very variable and light over England and France, Westerly and South-Westerly over Spain. The Westerly and South-Westerly wind over Spain spreading over the south of France later.

*Barometer* highest, 30·29 ins. at Kharkov, 30·15 ins. at Moscow, 30·1 ins. at Hernösand, and above 30·0 ins. over the northern and north-western countries of Europe, and also over Italy. Lowest, below 29·7 ins. over central Europe, and below 29·8 ins. over the south-west of France. Depression over central Europe moving slowly northwards later.

## Thursday, 11th May.

### Temperature and Weather.

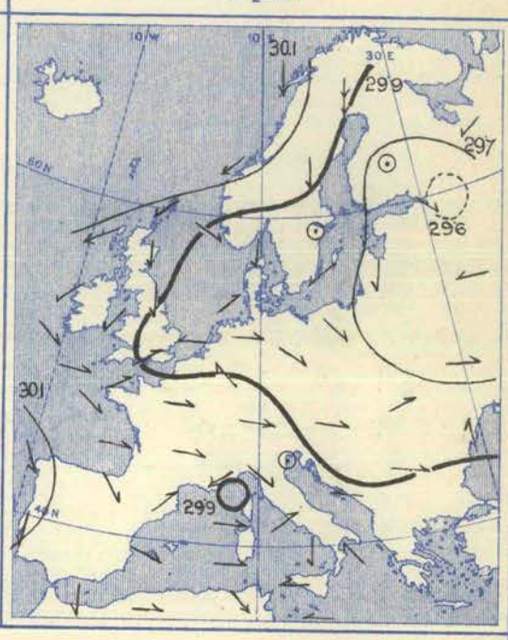
8 a.m.



### Barometer and Wind.

8 a.m.

6 p.m.



*Weather* in morning fair over our Islands as a whole, but far from being settled; fine over France and Scandinavia; unsettled and rainy over central Europe. Rain later in many parts of our Islands, France, and Germany—considerable over Germany, and at Shields; thunder and lightning at several of our south-western and some of our Midland stations. Sky clearing in London at night.

*Temperature* in morning very variable. Highest, 69° at Athens, 68° at La Calle, 67° at Algiers; 54° to 60° along our western and southern coasts, 53° at Berlin. Lowest, 31° at Archangel, 39° at Bodö, 47° at Wick, 49° at Spurn Head. Rising later to 66° at Loughborough, 68° in London; to 73° at Paris, 72° at Perpignan and Brindisi, to 70° at Cagliari and Lisbon. Air much softer over England than of late.

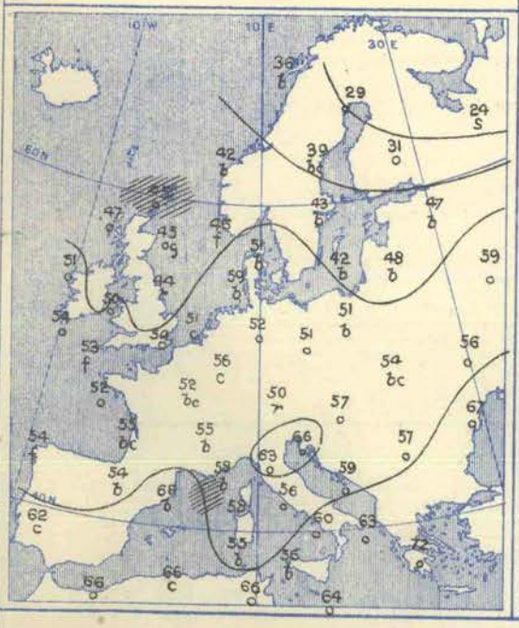
*Wind* still Northerly to North-Easterly, light, over Norway, Scotland, and Ireland; light and variable (North-Easterly to North-Westerly) over England. A Westerly to South-Westerly breeze creeping in over the southern parts of France and Germany. The Southerly wind extending to our southern counties later, and the Northerly wind continuing in Scotland and Ireland, but backing a little.

*Barometer* highest, 30·1 ins. and more to 30·0 ins. over Portugal, the western and northern parts of our Islands, and Norway; and 30·0 ins. and more over the north of Russia. Lowest, 29·7 ins. and less over central Europe. The depression over central Europe moving north-eastwards, but some very shallow secondaries being developed over Russia.

## Friday, 12th May.

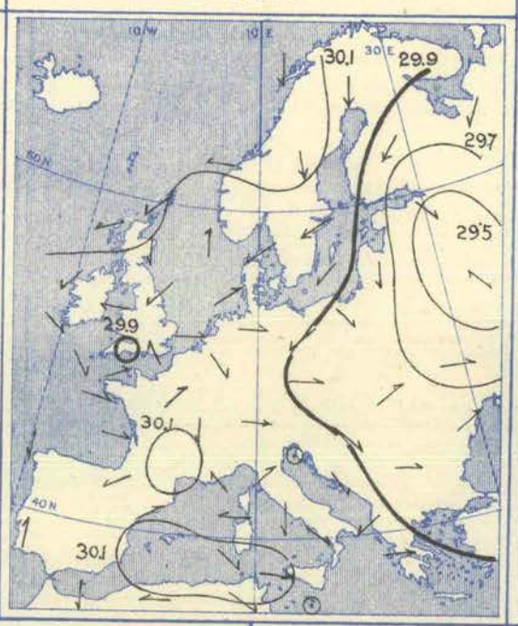
### Temperature and Weather.

8 a.m.

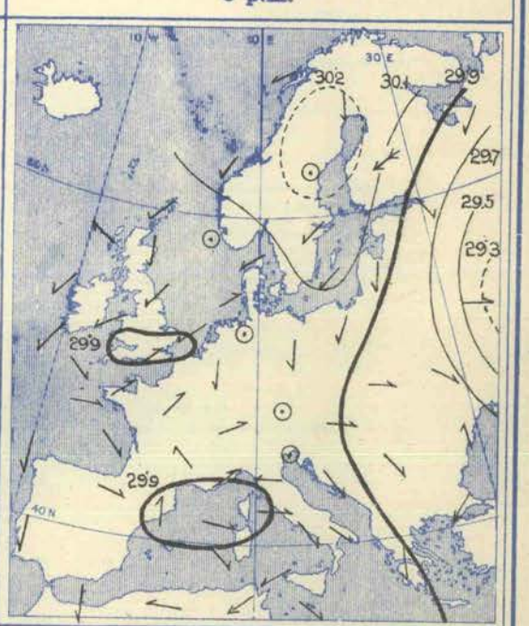


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning continuing fine over Norway, but in an unstable, changeable condition over the remainder of western Europe. Showers later over our western and northern districts, thunder at Oxford, but clearing sky again in London; heaviest rainfall reported was 0·75 ins. at Munich.

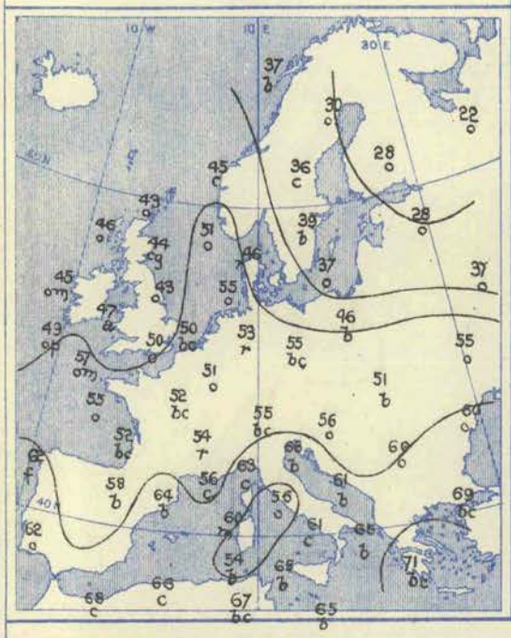
*Temperature* changing fitfully. Highest in morning, 72° at Athens, 66° at La Calle and Algiers, 60° at Kharkov, 59° at Moscow, and much above 50° over central Europe and parts of our southern and south-western counties. Lowest, 24° at Archangel. 29° at Haparanda; 45° to 47° over the northern and eastern parts of Great Britain. Rising during day to 79° at La Calle, to above 70° in many parts of southern Europe, to 66° at Paris and in London, to 70° at Berlin.

*Wind* Northerly, but variable over northern Europe and Scotland, North to North-West in Ireland; Westerly to South-Westerly, and variable over the southern countries of Europe; very variable, from South-East and South-West, over England. Force not great anywhere. No decided or general change later, but local variations over our Islands and the central countries.

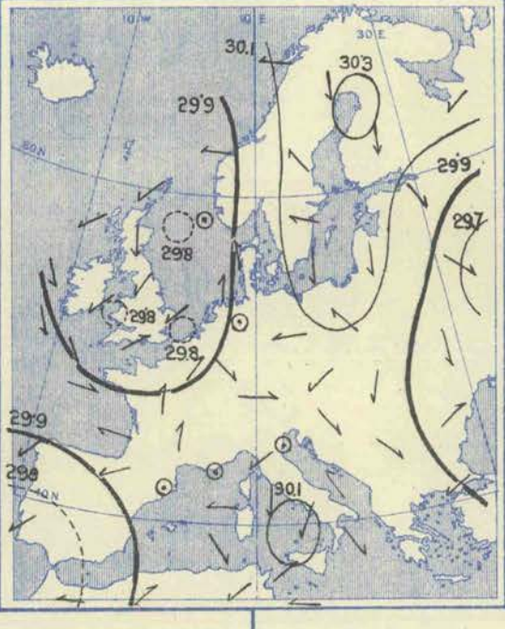
*Barometer* highest, 30·21 ins. at Christiansund; 30·11 ins. at Stornoway; 30·15 ins. at Porto Delgada; and exceeding 30·0 ins. over the northern half of Scandinavia, over Scotland, Ireland, the Bay of Biscay, Spain, and the greater part of south-western and central France. Lowest, 29·5 ins. and less in a depression over central Russia, and about 29·9 ins. in some shallow local disturbances over our Islands and the North Sea. Falling in Scotland later, and indications of new disturbances appearing in the United Kingdom.

## Saturday, 13th May.

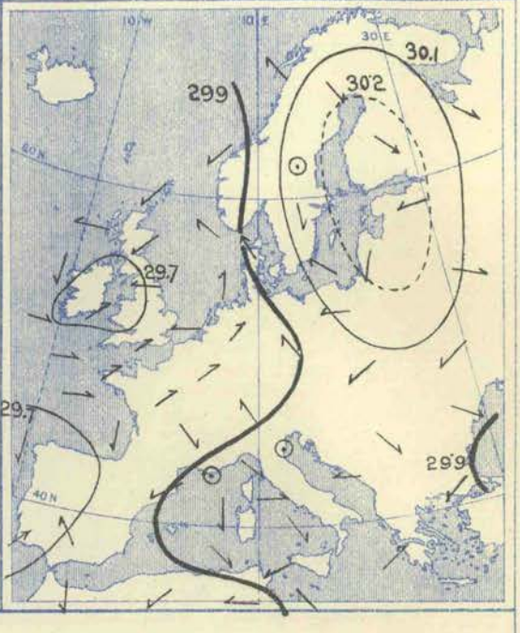
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning very changeable in various parts of our Islands, lightning at Dungeness, fine over Sweden, also over Italy and the Adriatic—unstable generally. Rain falling later in all the northern and western parts of the United Kingdom, showers over many localities on the Continent; thunder and lightning occurring in the southern parts of France.

*Temperature* less high than of late but air over our Islands becoming damp. Morning readings highest, 71° at Athens, 66° at Algiers; 62° at Corunna, 58° at Biarritz, 55° to 52° over many parts of France, Germany, and the south of our Islands. Lowest, 22° at Archangel, 28° at St. Petersburg, 30° at Haparanda, 37° at Moscow, 40° at Riga. Touching 60° at Jersey later, 64° in London, 68° at Paris, 70° at Wiesbaden, 77° at Lisbon, 83° at Perpignan.

*Wind* anticyclonic (and rather strong) over northern Europe. Cyclonic and very light and variable over our Islands; light and variable over southern Europe. Becoming still more variable (cyclonic) over Ireland later, and not less variable elsewhere.

*Barometer* highest, (1) 30·3 ins. and more at Uleaborg, and exceeding 30·1 ins. all over Sweden, Finland, and the Gulf of Bothnia. (2) Above 30·1 ins. over the south of Italy. Lowest, (1) 29·7 ins. and less in a depression over central Russia; (2) below 29·9 ins. over the whole of our Islands, and below 29·8 ins. in a few local minima over Great Britain and the North Sea. A new depression approaching the north of Ireland later from the Atlantic.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇛ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the commencement of the week an anticyclone lay over central Sweden, Finland, Ivonia and St. Petersburg, and in it readings ranged from 30·7 ins. to 30·6 ins. Its eastern limb extended over the north of Russia, while its western limb (with readings exceeding 30·4 ins.) lay over Scotland and nearly the whole of Ireland. The low-pressure area was very complex and covered the Mediterranean, Italy and the Adriatic. North-Easterly to Northerly breezes were therefore prevalent over the northern countries as a whole, and the rain (which fell in showers) was felt over the southern and central countries only.

Very gradually the area of highest pressure was transferred to Russia, but a ridge of high readings (decreasing in intensity) continued to cover the north and west of our Islands. In the meantime the complex low-pressure system in the south spread northwards over central Europe and the south-eastern part of the British Islands, and in its rear a warm breeze from the South-Westward spread gradually over us, so that on Thursday a maximum as high as 68° was recorded in London, and the night minima were much higher than they had been.

With the development of small shallow minima within the general and shallow low-pressure area already referred to, showers of rain and thunderstorms were experienced in many parts of the Kingdom and over central Europe—the one being in the northerly current over Ireland and Wales, the other in the south-easterly over Germany. In some places the fall was great, in several considerable.

No improvement seemed probable at the end of the week.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 110.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 39·2 | ? | 34 | ? | WATERGATE (Emsworth) | 65·0 | ? | 61 | ? |
| STRATHPEFFER SPA | 37·8 | − 0·5 | 33 | − 2 | BRIGHTON | 62·7 | +15·4 | 59 | +14 |
| EDINBURGH | 24·8 | −10·1 | 23 | − 9 | BOGNOR | 67·4* | ? | 64* | ? |
| MORPETH | 26·2 | ? | 24 | ? | WORTHING | 71·6 | ? | 68 | ? |
| NEWCASTLE-ON-TYNE | 23·3 | ? | 22 | ? | EASTBOURNE | 67·3 | +19·3 | 63 | +17 |
| OSWALDKIRK (Yorkshire) | 31·5 | − 6·2 | 29 | − 5 | VENTNOR HOSPITAL | 51·6 | ? | 49 | ? |
| HOLLESLEY BAY | 49·3 | ? | 47 | ? | SOUTHPORT | 30·6 | ? | 28 | ? |
| SHEFFIELD | 26·2 | ? | 24 | ? | COLWYN BAY | 41·4 | ? | 39 | ? |
| WORKSOP | 26·2 | −10·3 | 24 | −10 | ABERDOVEY | 36·2* | ? | 34* | ? |
| THURCASTON (Leicestershire) | 31·2 | − 7·6 | 29 | − 8 | TENBY | 39·2 | − 9·6 | 37 | −10 |
| PLUMSTEAD COMMON | 33·5 | ? | 32 | ? | NEWQUAY | 34·5 | −11·5 | 33 | −12 |
| MARGATE | 31·8 | −10·3 | 30 | − 9 | TORQUAY | 42·8* | − 3·7 | 41* | − 4 |
| WESTBOURNE (Emsworth) | 70·8* | ? | 67* | ? | GUERNSEY | 60·9* | + 4·9 | 59* | + 4 |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD. LITH. 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 20. | *Third Series.* WEEK ENDING SATURDAY, MAY 20TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 116.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 60 | 34 | 50·7 | 41·0 | 45·6 | 2 below | 29 | −13 | 3 | − 3 | 296 | − 7 | 599 | − 11 |
| | 1. SCOTLAND, EAST | 60 | 31 | 53·1 | 40·6 | 46·5 | 3 below | 37 | −15 | 4 | − 1 | 351 | − 37 | 651 | + 8 |
| | 2. ENGLAND, N.E. | 69 | 36 | 58·7 | 43·9 | 50·8 | 2 above | 62 | +10 | 0 | − 3 | 465 | + 88 | 450 | − 95 |
| | 3. ENGLAND, EAST | 71 | 42 | 60·5 | 47·7 | 53·7 | 3 above | 82 | +16 | 0 | − 4 | 620 | +128 | 421 | −190 |
| | 4. MIDLAND COUNTIES | 69 | 40 | 60·2 | 45·2 | 52·3 | 1 above | 72 | + 4 | 0 | − 4 | 612* | + 87 | 471* | −144 |
| | 5. ENGLAND SOUTH | 72 | 43 | 59·0 | 49·0 | 53·7 | 2 above | 82 | + 9 | 0 | − 1 | 701 | +147 | 294 | −180 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 60 | 33 | 54·6 | 42·3 | 47·9 | 2 below | 41 | −16 | 0 | − 3* | 418 | − 2 | 408 | − 50 |
| | 7. ENGLAND, N.W. | 64 | 42 | 56·8 | 45·5 | 50·8 | 0 (average) | 62 | + 2 | 0 | − 3 | 533 | +101 | 313 | −142 |
| | 8. ENGLAND, S.W. | 64 | 35 | 56·5 | 46·3 | 51·1 | 1 below | 64 | − 1 | 0 | − 1 | 682 | +125 | 240 | −120 |
| | 9. IRELAND, NORTH | 62 | 33 | 54·7 | 42·8 | 48·4 | 2 below | 45 | −14 | 0 | − 2 | 520* | + 24 | 323 | − 69 |
| | 10. IRELAND, SOUTH | 62 | 33 | 56·4 | 43·2 | 49·4 | 2 below | 52 | −13 | 0 | − 1 | 717 | + 97 | 245 | − 92 |
| | —CHANNEL ISLANDS | 65 | 45 | 58·9 | 48·7 | 53·5 | 1 above | 81 | + 9 | 0 | 0 | 954 | +288 | 81 | − 67 |

### Rainfall.

| | DISTRICTS. (See p. 116.) | For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 7 | 22 | 16 more | 93 | 0 | 20·6 | + 2·6 |
| | 1. SCOTLAND, EAST | 7 | 20 | 15 more | 89 | +15 | 14·7 | + 4·1 |
| | 2. ENGLAND, N.E. | 6 | 8 | 4 more | 81 | +10 | 9·7 | + 1·4 |
| | 3. ENGLAND, EAST | 5 | 12 | 8 more | 72 | + 3 | 8·5 | + 0·4 |
| | 4. MIDLAND COUNTIES | 5 | 9 | 4 more | 73 | + 7 | 10·8 | + 1·6 |
| | 5. ENGLAND, SOUTH | 5 | 8 | 4 more | 64 | 0 | 9·6 | − 0·1 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 7 | 24 | 18 more | 91 | +12 | 21·7 | + 4·1 |
| | 7. ENGLAND, N.W. | 7 | 9 | 5 more | 85 | +13 | 14·0 | + 3·2 |
| | 8. ENGLAND, S.W. | 6 | 14 | 9 more | 81 | + 9 | 18·1 | + 4·7 |
| | 9. IRELAND, NORTH | 7 | 15 | 9 more | 98 | +14 | 15·4 | + 2·8 |
| | 10. IRELAND, SOUTH | 6 | 19 | 13 more | 83 | + 6 | 18·5 | + 4·2 |
| | — CHANNEL ISLANDS | 6 | 11 | 7 more | 76 | − 2 | 12·2 | + 0·7 |

### Bright Sunshine.

| | DISTRICTS. (See p. 116.) | For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 18 | −20 | 15 | −18 | 445 | + 33 | 27 | + 2 |
| | 1. SCOTLAND, EAST | 26 | −14 | 23 | −13 | 466 | + 18 | 30 | + 1 |
| | 2. ENGLAND, N.E. | 23 | −17 | 21 | −15 | 431 | − 11 | 28 | 0 |
| | 3. ENGLAND, EAST | 37 | −11 | 34 | −11 | 609 | + 69 | 37 | + 5 |
| | 4. MIDLAND COUNTIES | 32 | −10 | 29 | −10 | 509* | + 61 | 33 | + 3 |
| | 5. ENGLAND, SOUTH | 35 | −13 | 32 | −13 | 614 | + 83 | 39 | + 6 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 31 | −11 | 28 | −11 | 458 | − 3 | 29 | 0 |
| | 7. ENGLAND, N.W. | 29 | −13 | 26 | −13 | 514 | + 59 | 33 | + 4 |
| | 8. ENGLAND, S.W. | 36 | −12 | 34 | −11 | 584 | + 15 | 37 | + 1 |
| | 9. IRELAND, NORTH | 35 | − 6 | 32 | − 5 | 506 | + 58 | 32 | + 3 |
| | 10. IRELAND, SOUTH | 41 | − 3 | 37 | − 4 | 560 | + 36 | 36 | + 3 |
| | — CHANNEL ISLANDS | 43 | −15 | 41 | −15 | 661 | + 48 | 43 | + 3 |

*Bright Sunshine* —Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was very unsettled and rainy generally, especially in the west and north. Thunderstorms were experienced in many parts of the Kingdom soon after the commencement of the week, and again in some districts later on.

*Temperature* was rather below the mean in Scotland, Ireland, and the south-west of England, and just equal to the normal in England N.W., but in all the other English districts it was a little above it. The highest of the maxima occurred on the 18th over England, and on somewhat irregular dates in Ireland and Scotland ; they ranged from 72° in England S. (in London) and 71° in England E. to 62° over Ireland and 60° over Scotland. The lowest of the minima, which were registered on different days in the various districts, ranged from 31° in Scotland E. and 33° in Scotland W. and over Ireland, to 43° in England S. and to 45° in the Channel Islands.

*Rainfall* exceeded the mean in all districts. The aggregate fall was very heavy generally, varying from about twice as much as the normal over northern, central and southern England, to about three times as much in most western and northern districts and in England E., and to four times as much in the west and east of Scotland

*Bright Sunshine* was deficient in all parts of the Kingdom. The percentage of the possible duration ranged from 41 in the Channel Islands, 37 in Ireland S., and 34 in England E. and S.W. to 21 in England N.E. and 15 in Scotland N.

*Barometer and Wind.*—During the earlier days of the period a complex and shallow area of low pressure spread over our Islands from the Atlantic, causing light Southerly and South-Westerly winds in the south and east, and South-Easterly to North-Easterly winds in the north. By Tuesday morning this system had become deeper and less complex, and its centre having moved to the northward of Scotland, the South-Westerly winds had extended to all parts of the Kingdom and increased greatly in force. This depression subsequently filled up slowly and moved away northwards ; but during the remainder of the period other systems advanced from the westward causing a continuance of fresh or very strong South-Westerly and Westerly winds—at first over the whole Kingdom, but ultimately over England only. At the close of the week a strong North-Easterly wind had set in in the north-east of Scotland, and fresh Northerly winds over the northern half of Ireland.

207 | 90 Wy. & S., Ltd.
613 | 70 5 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 115 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 51 | 40 | 48·9 | 42·4 | 45·5 | 0·0 | 25 | 0 | 7 | 2·66 | + 2·24 | * | * | * | * |
| | Stornoway | 56 | 39 | 51·0 | 41·7 | 46·1 | − 1·1 | 30 | 1 | 7 | 2·06 | + 1·47 | 20·2 | − 21·6 | 17 | − 19 |
| | Wick | 56 | 40 | 51·0 | 41·9 | 46·2 | − 1·2 | 30 | 0 | 7 | 1·90 | + 1·50 | * | * | * | * |
| | Lairg Ⓢ | 60 | 37 | 51·3 | 39·3 | 45·0 | − 2·4 | 32 | 8 | 7 | 1·65 | + 1·15 | * | * | * | * |
| | Glencarron Ⓢ | 54 | 36 | 49·4 | 39·2 | 44·0 | − 4·3 | 26 | 8 | 7 | 3·63 | + 2·54 | * | * | * | * |
| | Fort Augustus Ⓢ | 58 | 34 | 51·1 | 40·6 | 45·5 | − 4·0 | 30 | 4 | 7 | 1·81 | + 1·35 | 13·5 | − 14·5 | 12 | − 14 |
| | Fort William Ⓢ | 56 | 38 | 51·9 | 41·9 | 46·6 | − 3·6 | 33 | 0 | 7 | 1·66 | + 0·86 | 17·7 | − 20·5 | 15 | − 19 |
| 1. SCOTLAND E. | Nairn | 58 | 34 | 51·7 | 39·4 | 45·2 | − 4·3 | 33 | 7 | 7 | 1·91 | + 1·51 | * | * | * | * |
| | Aberdeen | 60 | 40 | 52·9 | 42·9 | 47·6 | − 1·1 | 39 | 0 | 7 | 1·80 | + 1·34 | 26·0 | − 16·6 | 23 | − 15 |
| | Braemar Ⓢ | 54 | 31 | 48·3 | 35·8 | 41·7 | − 4·8 | 18 | 24 | 7 | 2·10 | + 1·61 | 23·0† | − 16·8† | 20† | − 16† |
| | Ochtertyre Ⓢ | 60 | 38 | 55·0 | 40·6 | 47·4 | − 2·6 | 44 | 4 | 7 | 2·31 | + 1·75 | * | * | * | * |
| | Leith Ⓢ | 60 | 42 | 56·0 | 43·7 | 49·5 | − 1·0 | 53 | 0 | 7 | 2·24 | + 1·84 | * | * | * | * |
| | Marchmont Ⓢ | 57 | 38 | 54·4 | 40·9 | 47·3 | − 1·0 | 42 | 3 | 7 | 1·54 | + 0·96 | 28·8 | − 12·1 | 25 | − 12 |
| 2. ENGLAND, N.E. | Alnwick Castle | 69 | 41 | 59·7 | 43·2 | 51·0 | + 3·1 | 63 | 0 | 5 | 0·89 | + 0·39 | * | * | * | * |
| | Durham | 63 | 36 | 58·3 | 42·3 | 49·8 | + 0·4 | 55 | 0 | 6 | 0·50 | + 0·02 | 25·7 | − 13·1 | 23 | − 11 |
| | Shields | 63 | 40 | 58·0 | 44·1 | 50·6 | + 2·1 | 60 | 0 | 7 | 0·67 | + 0·27 | * | * | * | * |
| | Scarborough Ⓜ | 65 | 41 | 59·2 | 43·0 | 50·6 | + 1·3 | 60 | 0 | 6 | 0·84 | + 0·37 | ? | ? | ? | ? |
| | York | | | | | | | | | | | | | | | |
| | Spurn Head | 65 | 45 | 58·4 | 46·7 | 52·2 | + 2·7 | 71 | 0 | 6 | 1·31 | + 0·93 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 71 | 42 | 62·7 | 46·5 | 54·1 | + 3·1 | 85 | 0 | 6 | 0·90 | + 0·45 | 32·8 | − 14·0 | 30 | − 13 |
| | Yarmouth | 61 | 46 | 57·7 | 48·1 | 52·6 | + 2·4 | 74 | 0 | 5 | 1·14 | + 0·71 | * | * | * | * |
| | Geldeston | 69 | 44 | 61·7 | 47·7 | 54·3 | + 3·6 | 86 | 0 | 5 | 1·65 | + 1·24 | 41·5 | − 8·5 | 38 | − 9 |
| | Cambridge | | | | | | | | | 4 | 1·03 | | | | | |
| | Felixstowe | 64 | 48 | 59·1 | 49·4 | 54·0 | + 3·0 | 84 | 0 | | | ? | 39·6 | ? | 36 | ? |
| | Rothamsted | 67 | 45 | 61·3 | 46·7 | 53·6 | + 2·4 | 81 | 0 | 5 | 1·40 | + 0·92 | 30·8 | − 13·2 | 28 | − 13 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 68 | 41 | 62·9 | 44·6 | 53·2 | + 1·2 | 78 | 0 | 5 | 0·92 | + 0·43 | * | * | * | * |
| | Loughborough | 68 | 41 | 61·7 | 46·0 | 53·4 | + 0·9 | 80 | 0 | 6 | 1·00 | + 0 52 | * | * | * | * |
| | Stamford (Duddington) | 69 | 42 | 62·0 | 46·7 | 53·9 | + 2·2 | 83 | 0 | 5 | 0·92 | + 0·40 | * | * | * | * |
| | Cheadle Ⓜ | 62 | 40 | 57·7 | 43·7 | 50·3 | + 0·6 | 58 | 0 | 5 | 0·95 | + 0·41 | * | * | * | * |
| | Shirley (near Solihull) | 64 | 41 | 59·7 | 44·9 | 51·9 | + 0·4 | 69 | 0 | 7 | 0·92 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 63 | 40 | 58·7 | 43·2 | 50·5 | + 0·8 | 60 | 0 | 6 | 0·74 | + 0·24 | 42·6 | + 0·7 | 39 | 0 |
| | Hereford Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 64 | 40 | 58·4 | 45·1 | 51·4 | + 0·9 | 66 | 0 | 4 | 0·73 | + 0·23 | 31·4 | − 13·6 | 29 | − 13 |
| | Oxford | 67 | 45 | 60·7 | 47·6 | 53·8 | + 1·9 | 83 | 0 | 4 | 0·73 | + 0·30 | 30·6 | − 13·0 | 28 | − 13 |
| 5. ENGLAND, S. | London | 72 | 47 | 64·4 | 48·7 | 56·1 | + 2·8 | 99 | 0 | 5 | 0·88 | + 0·48 | 28·7† | − 11·5† | 26† | − 12† |
| | Cranley Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Dungeness | 62 | 47 | 57·4 | 50·0 | 53·5 | + 1·8 | 81 | 0 | 4 | 0·81 | + 0·43 | * | * | * | * |
| | Hastings (St. Leonards) | 61 | 46 | 56·7 | 48·8 | 52·5 | + 0·6 | 74 | 0 | 5 | 0·93 | + 0·54 | 39·0 | − 13·8 | 36 | − 14 |
| | Southampton | 66 | 47 | 61·3 | 49·4 | 55·0 | + 1·9 | 91 | 0 | 6 | 0·83 | + 0·40 | 29·2 | − 19·3 | 27 | − 19 |
| | Hurst Castle | 61 | 47 | 57·9 | 51·0 | 54·2 | + 1·8 | 85 | 0 | 5 | 0·48 | + 0·10 | * | * | * | * |
| | Shaftesbury Ⓜ | 59 | 43 | 56·4 | 45·9 | 50·8 | + 0·1 | 62 | 0 | 6 | 0·81 | + 0·34 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 57 | 40 | 52·8 | 42·6 | 47·4 | − 2·9 | 38 | 0 | 7 | 1·16 | + 0·31 | * | * | * | * |
| | Glasgow | 54 | 40 | 52·9 | 43·2 | 47·8 | − 1·7 | 41 | 0 | 6 | 3·55 | + 2·97 | 17·8 | − 17·6 | 16 | − 16 |
| | Glenlee Ⓢ | 60 | 33 | 55·6 | 40·2 | 47·5 | − 1·9 | 46 | 5 | 7 | 3·02 | + 2·31 | * | * | * | * |
| | Douglas (Isle of Man) | 60 | 37 | 54·7 | 43·3 | 48·7 | − 1·0 | 47 | 0 | 6 | 1·94 | + 1·44 | 44·6 | − 4·4 | 40 | − 5 |
| 7. ENGLAND, N.W. | Stonyhurst | 61 | 42 | 55·7 | 44·9 | 50·0 | − 0·2 | 56 | 0 | 7 | 1·30 | + 0·66 | 21·0 | − 21·1 | 19 | − 20 |
| | Blackpool Ⓜ | 63 | 43 | 58·2 | 45·6 | 51·5 | + 0·8 | 67 | 0 | 7 | 0·99 | + 0·52 | 26·0 | − 16·4 | 23 | − 16 |
| | Manchester (Prestwich) | 63 | 42 | 57·4 | 44·8 | 50·7 | + 0·2 | 61 | 0 | 7 | 0·95 | + 0·40 | 25·1 | ? | 23 | ? |
| | Liverpool Obsy. (Bidston) | 64 | 44 | 57·7 | 45·9 | 51·5 | 0·0 | 67 | 0 | 6 | 0·48 | + 0·06 | 26·8 | ? | 24 | ? |
| | Llandudno Ⓜ | 60 | 44 | 57·1 | 46·4 | 51·4 | − 0·3 | 66 | 0 | 7 | 0·87 | + 0·45 | 38·8 | − 3·3 | 35 | − 4 |
| | Holyhead | 57 | 44 | 54·3 | 45·1 | 49·6 | − 1·6 | 53 | 0 | 7 | 1·06 | + 0·64 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 59 | 35 | 57·9 | 43·3 | 50·2 | − 1·3 | 57 | 0 | 7 | 1·52 | + 0·89 | * | * | * | * |
| | Pembroke | 55 | 45 | 54·1 | 46·7 | 50·2 | − 0·4 | 57 | 0 | 5 | 1·48 | + 1·05 | 44·6 | − 4·2 | 41 | − 4 |
| | Clifton | 64 | 46 | 59·0 | 48·2 | 53·3 | + 1·8 | 79 | 0 | 4 | 1·27 | + 0·74 | * | * | * | * |
| | Arlington (N. Devon) | 58 | 40 | 55·7 | 44·1 | 49·6 | − 0·9 | 53 | 0 | 5 | 2·04 | + 1·39 | * | * | * | * |
| | Cullompton Ⓜ | 61 | 41 | 58·5 | 46·4 | 52·1 | − 0·2 | 71 | 0 | 6 | 1·14 | + 0·67 | 22·5 | − 21·5 | 21 | − 21 |
| | Falmouth | 59 | 42 | 57·0 | 46·6 | 51·5 | − 0·6 | 67 | 0 | 7 | 1·54 | + 1·00 | 37·5 | − 13·2 | 35 | − 13 |
| | Plymouth | 58 | 43 | 55·1 | 47·7 | 51·2 | − 2·3 | 64 | 0 | 6 | 1·32 | + 0·87 | 32·4 | − 14·9 | 30 | − 15 |
| | Prawle Point | 56 | 44 | 54·7 | 47·3 | 50·8 | − 0·3 | 62 | 0 | 5 | 0·67 | + 0·35 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 53 | 42 | 50·9 | 44·4 | 47·5 | − 2·2 | 39 | 0 | 7 | 1·35 | ? | * | * | * | * |
| | Londonderry | 59 | 40 | 55·0 | 42·7 | 48·5 | − 2·8 | 46 | 0 | 7 | 1·53 | + 1·00 | * | * | * | * |
| | Edenfel (Omagh) | 57 | 37 | 54·6 | 41·4 | 47·6 | − 1·4 | 42 | 2 | 7 | 1·47 | + 0·94 | * | * | * | * |
| | Belmullet | 55 | 39 | 53·4 | 42·6 | 47·7 | − 3·1 | 40 | 0 | 7 | 0·48 | − 0·17 | * | * | * | * |
| | Markree Castle | 62 | 33 | 56·4 | 39·9 | 47·7 | − 1 7 | 49 | 6 | 6 | 1·09 | + 0·54 | 34·8 | − 6·4 | 31 | − 6 |
| | Armagh | 62 | 39 | 56·8 | 42·5 | 49·2 | − 0·8 | 50 | 0 | 6 | 2·24 | + 1·77 | 35·2 | − 4·5 | 32 | − 4 |
| | Donaghadee | 60 | 43 | 55·6 | 46·1 | 50·6 | + 0·3 | 60 | 0 | 7 | 2·02 | + 1 51 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 61 | 40 | 58·2 | 45·2 | 51·3 | − 0·7 | 65 | 0 | 6 | 0·96 | + 0·48 | 38·7 | − 7·7 | 35 | − 8 |
| | Parsonstown | 62 | 36 | 56·9 | 42·0 | 49·0 | − 2·0 | 49 | 0 | 6 | 1·77 | + 1·22 | 35·5 | − 5·0 | 32 | − 5 |
| | Kilkenny | 58 | 34 | 56·6 | 42·0 | 48·9 | − 2·4 | 48 | 0 | 7 | 1·49 | + 1·00 | * | * | * | * |
| | Roche's Point | 58 | 40 | 55·4 | 44·3 | 49·5 | − 3·1 | 53 | 0 | 7 | 2·37 | + 1·67 | * | * | * | * |
| | Valencia | 59 | 39 | 55·6 | 44·0 | 49·5 | − 2·9 | 53 | 0 | 6 | 2·23 | + 1·55 | 49·2 | + 3·2 | 45 | +2 |
| | Killarney | 61 | 33 | 55·4 | 41·4 | 48·0 | − 4·0 | 45 | 2 | 5 | 2·61 | ? | * | * | * | * |
| | Foynes | 61 | 35 | 56·9 | 43·2 | 49·6 | − 1·4 | 53 | 0 | 6 | 1·91 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 59 | 48 | 57·3 | 49·3 | 53·1 | + 0·6 | 78 | 0 | 7 | 1·05 | + 0·67 | 44·6 | ? | 42 | ? |
| | Jersey | 65 | 45 | 60·4 | 48·1 | 53·9 | + 0·4 | 83 | 0 | 5 | 1·17 | + 0·73 | 38·3 | − 16·7 | 36 | − 17 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

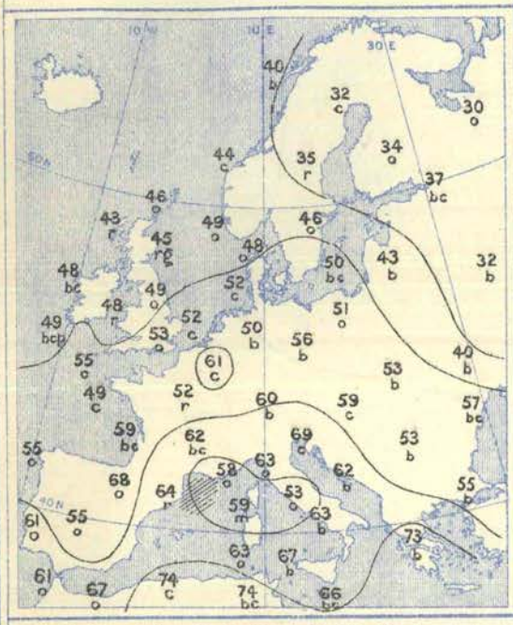
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

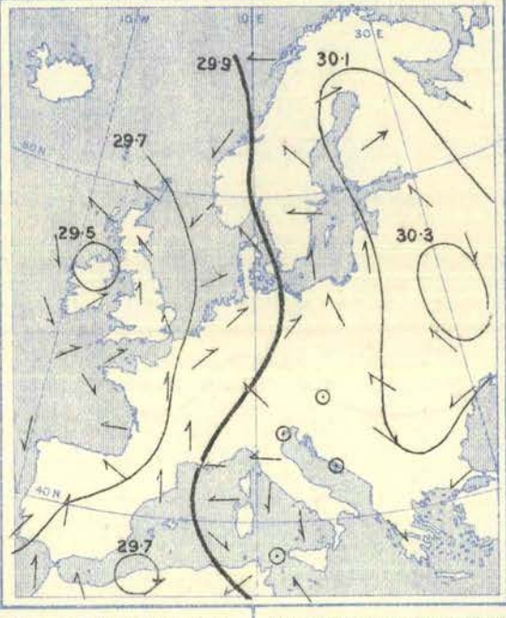
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 14th May.

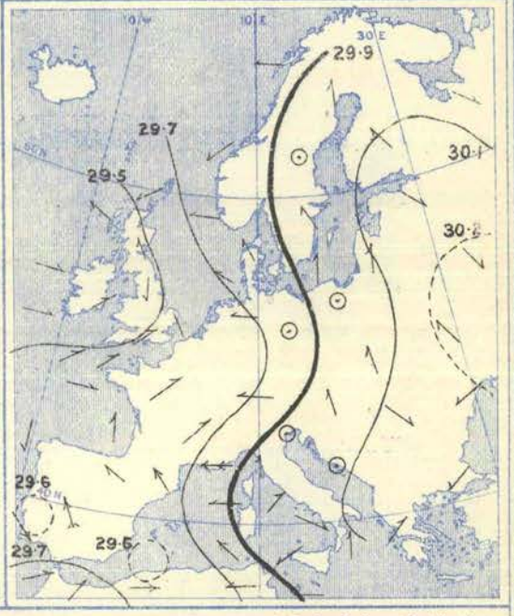
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.




### Barometer and Wind. 6 p.m.




*Weather* in morning rainy in the north of Scotland and showery in many other parts of the United Kingdom. Fine over Germany, Austria, northern Italy and the greater part of Russia; cloudy or dull in other parts of the Continent, with rain in the north of France, as well as at Hernösand and Karlstad. Rain falling later in all the more western parts of Europe—heavily at many of the French and Spanish stations. Thunderstorm occurring at Nice, lightning only in other parts of France, and thunder at Nairn.

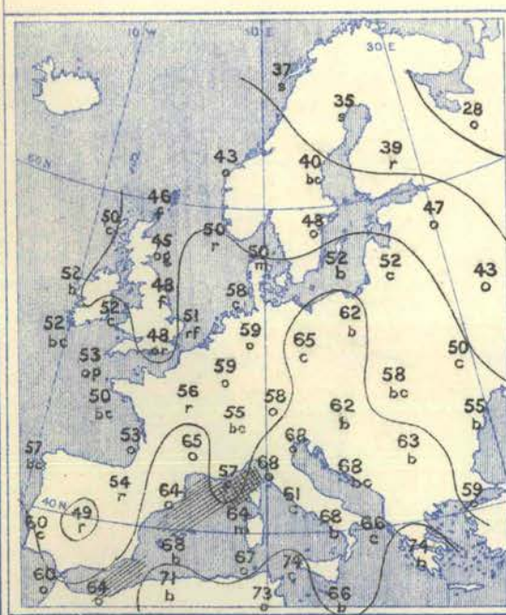
*Temperature* risen in most places. Morning readings highest, 74° at Algiers and La Calle, 73° at Athens, and 69° at Trieste; above 60° at most of the Mediterranean, Adriatic and Spanish coast stations. Lowest, 30° at Archangel, 32° at Haparanda and Moscow, and 34° at Kuopio. Rising during day to between 55° and 60° in most parts of England, and to 64° in London; exceeding 70° over central and southern Europe generally; reaching 78° at Belfort and Nancy, and 81° at Palermo.

*Wind* light from the North-Westward over the southern parts of Ireland, from the South-Westward over the English and St. George's Channels, from the Southward on our east coasts, and from the South-Eastward or Eastward in the north of Scotland. Easterly in the west and south of France; Southerly over the Spanish Peninsula, central France and Germany; South-Westerly in Denmark; South-Easterly in Sweden; Northerly in the west of Norway. North-Easterly in the south of Russia; calm in Austria; variable in Italy. Subsequently backing to the Westward in the south of Ireland; Easterly gale springing up in the extreme south of France.

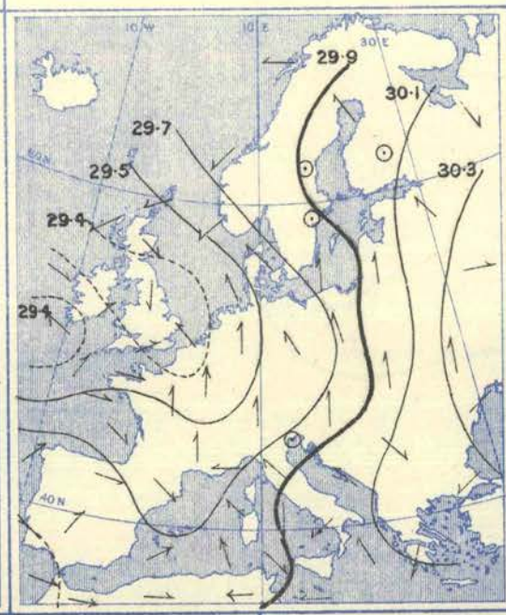
*Barometer* highest, 30·2 ins. and upwards in an anticyclone over Russia. Lowest, 29·5 ins. and less in a shallow depression with its centre over the north of Ireland; 29·7 ins. and less in a small shallow disturbance over the north of Spain. Former depression subsequently moving eastwards; Spanish disturbance advancing northwards over Bay of Biscay; new depressions approaching our own western coasts in evening.

## Monday, 15th May.

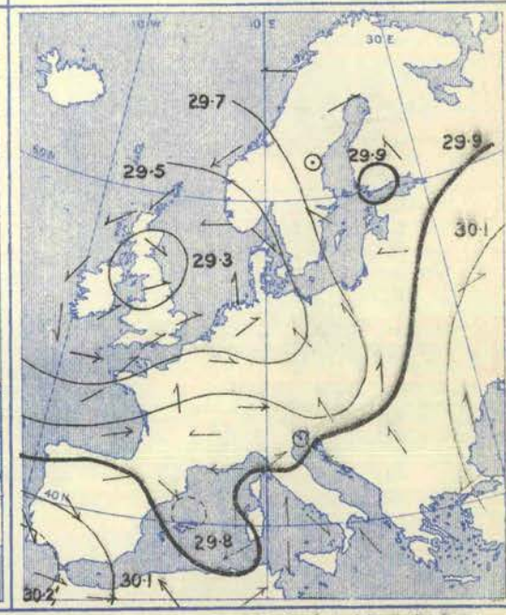
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.




### Barometer and Wind. 6 p.m.




*Weather* in morning fine on several parts of our own western and southern coasts, but dull and unsettled over western Europe as a whole; fog reported on the north and east coasts of Great Britain, and rain in many parts of England and France, as well as in the south of Norway and in Finland. Fine over Austria, Greece and the southern parts of Russia and Italy; dull in Spain, with rain at Madrid. Improvements taking place later over England, but rain falling in Scotland and at many of the Continental stations; thunder and lightning occurring over the northern parts of Ireland and England and also at Karlstad.

*Temperature* changed rather irregularly in the western countries, risen elsewhere. Morning readings highest, 74° at Palermo and Athens, and 72° at Patras and Algiers; above 65° at most of the Mediterranean and Spanish coast stations. Lowest, 28° at Archangel, 35° at Haparanda, 36° at Uleaborg, and 39° at Kuopio; lowest in our Islands, 43° at Nairn. Daily maxima below 50° on some parts of our own extreme northern coasts; thermometer exceeding 55° in the west and south and reaching 61° in London. Rising above 70° over central and southern Europe generally, and reaching 82° at Berlin.

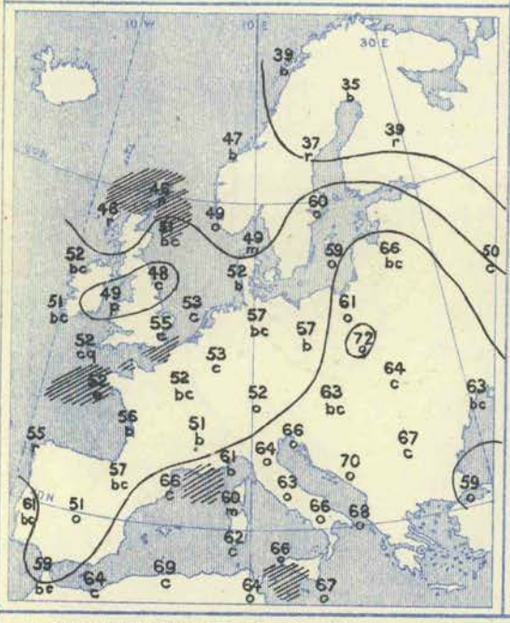
*Wind* light from the South-Westward over the greater part of England, and from the South-Eastward in Ireland, but variable on our east coasts; Easterly or North-Easterly in the north of Scotland and also in Norway. Westerly over the Spanish Peninsula and the Bay of Biscay; Southerly over central France and the Netherlands, South-Easterly over north Germany, Denmark and the Baltic. Variable over Austria and Italy. Subsequently shifting to the Northward in the west of Ireland, no important change occurring elsewhere.

*Barometer* highest, 30·3 ins. and upwards in an anticyclone over Russia, 30·0 ins. and upwards in another system off the south-west of Spain. Lowest, 29·4 ins. and less in a shallow depression off the south of Ireland, and also in a large and complex area covering the northern and eastern parts of our Islands. Irish depression subsequently advancing north-eastwards, but filling up, northern disturbance moving northwards and becoming more clearly defined.

## Tuesday, 16th May.

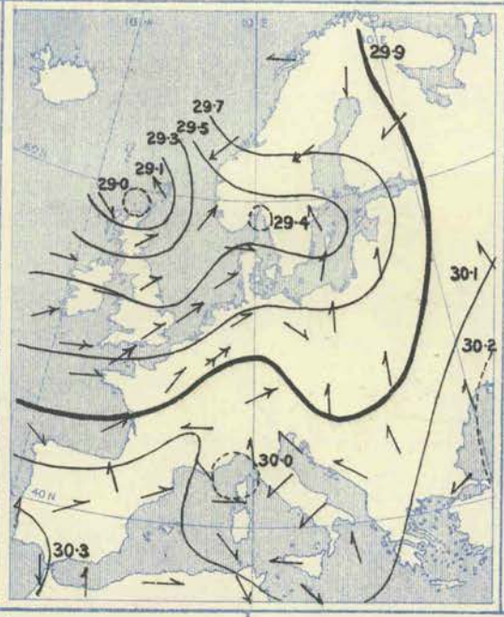
### Temperature and Weather.

8 a.m.

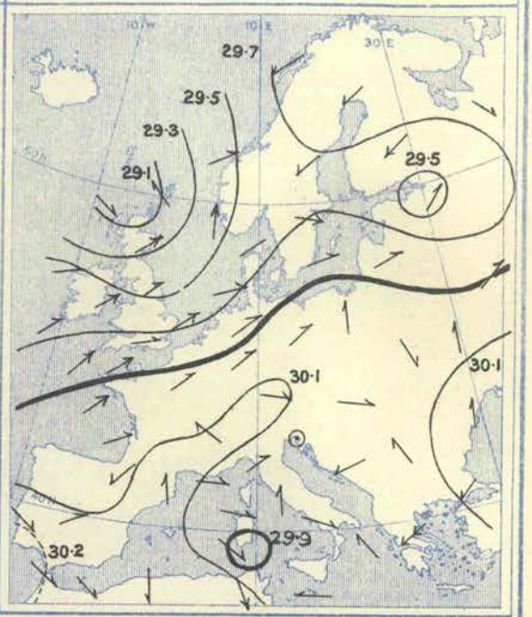


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over France and the Netherlands, as well as over the greater part of England and Ireland, but showery at some of our western and southern stations; rainy in the north of Scotland. Cloudy in most parts of eastern, central and southern Europe, with rain at Kuopio and Hernösand, and also at Breslau and Prague. Rain falling later over nearly the whole of north-western and northern Europe—heavily at Stornoway and also at Kuopio. Thunder and lightning occurring in many parts of England, and also at Cuxhaven.

*Temperature* fallen in the more central countries, but risen elsewhere. Morning readings highest, 72° at Cracow, 70° at Lesina, and 69° at Algiers; above 65° in many parts of eastern and southern Europe. Lowest, 35° at Haparanda, 36° at Uleaborg, 37° at Hernösand, and 39° at Kuopio. Rising during day to between 55° and 60° in most parts of the United Kingdom, and to 62° in London; exceeding 70° over southern and eastern Europe, and reaching 82° at Brindisi and Hermanstadt.

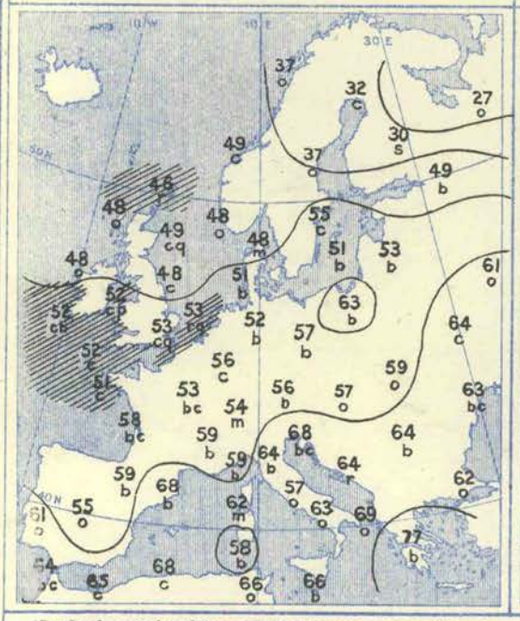
*Wind* moderate to fresh from the Westward or South-Westward over western Europe as a whole, but strong at some of the English Channel stations, and also in the south of Norway. Easterly or North-Easterly over Finland and the northern parts of Scandinavia. Southerly over Austria and south Germany; variable over Italy, Spain and the extreme south of France. No important change occurring during day.

*Barometer* highest, 30·2 ins. and upwards in an anticyclone lying over the central and southern parts of Spain, and also in another system over the Black Sea and the south of Russia. Lowest, 29·0 ins. and less in a well-marked depression with its centre off the north of Scotland; 29·4 ins. and less in a secondary disturbance lying over the Christiania Fiord. Former depression subsequently moving slowly northwards; latter disturbance entirely dispersing. Small secondary depression advancing north-eastwards across England at night.

## Wednesday, 17th May.

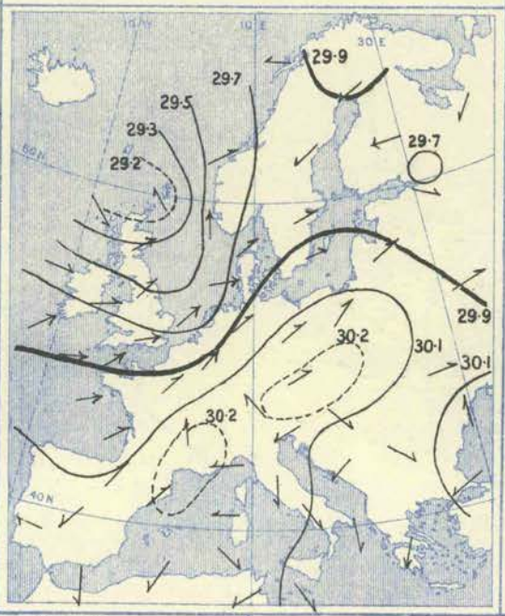
### Temperature and Weather.

8 a.m.

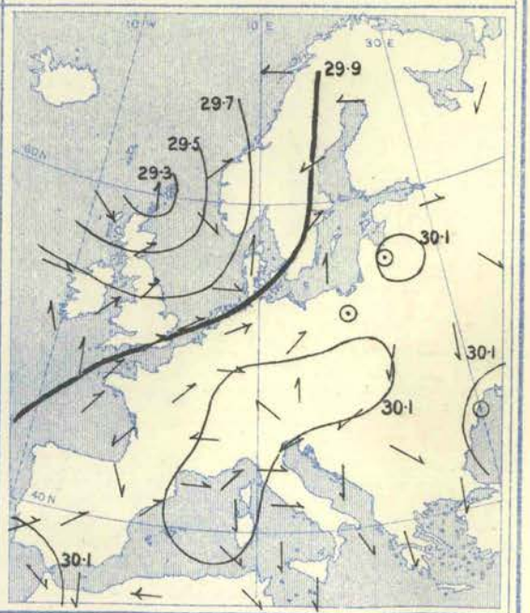


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning changeable and showery over our Islands generally, but fine at most of the south-western stations. Fine in the western and central parts of the Continent; dull in many parts of Scandinavia and northern Russia, with snow at Kuopio, dull also at several of the Spanish, Italian and Austrian stations, with rain at Lesina and Buda-Pesth. Rain falling later in the west and north of our Islands generally, as well as in Denmark and Sweden—heavily in the south of Ireland and also at Hernösand.

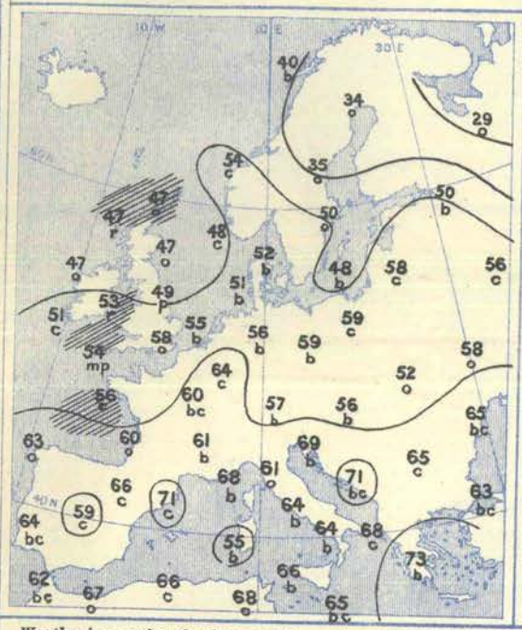
*Temperature* changed irregularly in our Islands, risen in Spain, France and Germany, fallen elsewhere. Morning readings highest, 77° at Patras, 71° at Athens and 69° at Brindisi; above 65° at many of the Mediterranean and Adriatic stations. Lowest, 27° at Archangel, 30° at Kuopio and 32° at Haparanda and Uleaborg. Rising during day to between 55° and 60° in most parts of the United Kingdom, and to 63° in London; exceeding 65° in France and Germany, and exceeding 70° in many parts of southern Europe, the highest reading of all being 81° at Hermanstadt.

*Wind* South-Westerly or Westerly in our Islands generally, and strong in force on many parts of the English and Irish coasts. Light to fresh from the Southward or South-Westward over the western parts of the Continent; Easterly or North-Easterly in the northern parts of Russia and Scandinavia. Light from the North-Eastward or Eastward over the Spanish Peninsula, and from the North-Westward or Westward over Italy and Austria; fresh to strong from the Northward in Greece. Subsequently backing to the Southward or South-Eastward on our own extreme south-west coasts. Shifting to the Northward in the south-west of France.

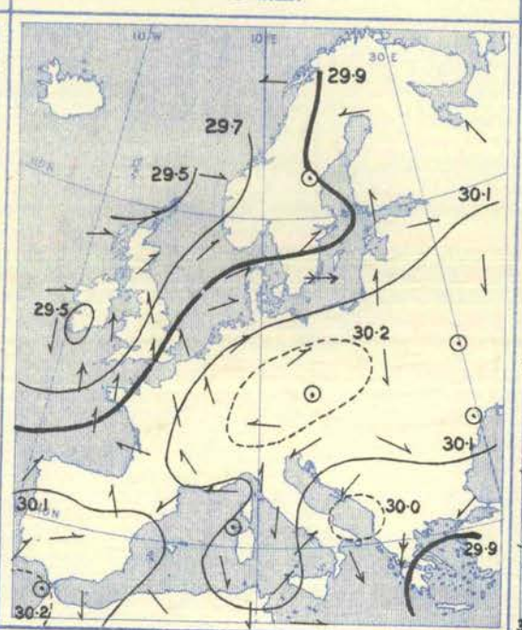
*Barometer* highest, 30·2 ins. and upwards in three areas, lying respectively over the southern parts of France, Germany and Russia; 30·1 ins. and upwards in an anticyclone covering nearly the whole of eastern, central and southern Europe. Lowest, 29·2 ins. and less in a depression with its centre off the north of Scotland; 29·8 ins. and less in a large area over northern Russia. New depression approaching the south-west of Ireland in evening.

## Thursday, 18th May.

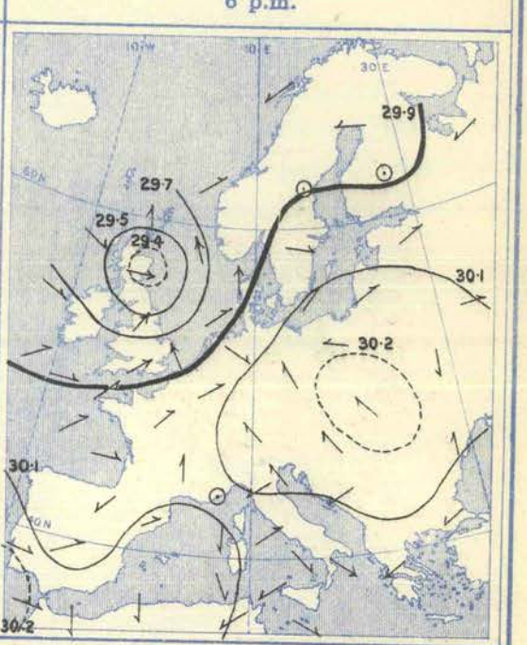
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull in most parts of the United Kingdom, with rain at several of our western and northern stations. Dull also in the west of France and in Sweden, but fine over the Continent as a whole. Considerable amounts of rain falling later in Ireland and Scotland, and smaller quantities in Scandinavia and northern Russia. Lunar halos seen at Spurn Head and Oxford.

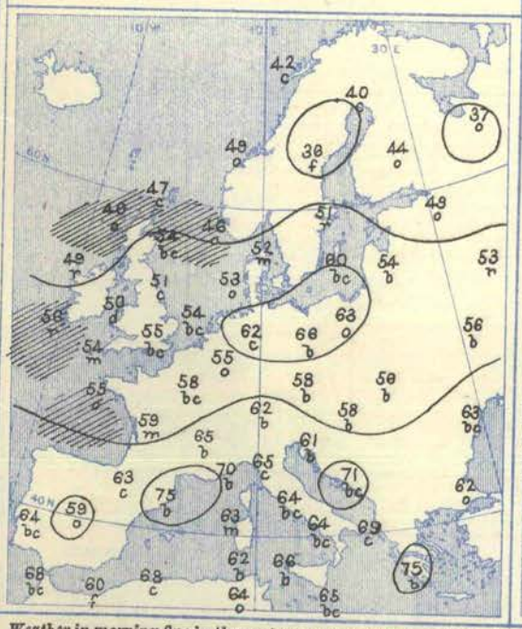
*Temperature* fallen a little in Ireland and Scotland and also over Sweden and the Baltic, but risen elsewhere. Morning readings highest, 73° at Athens and Patras, 71° at Lesina and Barcelona, and 69° at Trieste; above 65° at several of the Mediterranean and Adriatic stations. Lowest, 29° at Archangel, 34° at Uleaborg and Haparanda, 35° at Hernösand and 40° at Bodö. Rising during day to 65° and upwards in many parts of England, and reaching 72° in London; exceeding 70° also over France, Germany and the Netherlands, and exceeding 75° in many parts of southern Europe.

*Wind* Southerly over England and Wales, and very strong in the west; South-Easterly in the north of Ireland, Northerly at Valencia. South-Westerly in Scotland and also over Denmark, north Germany and the south of Scandinavia; gale from West reported at Wisby, but calms in the Gulf of Bothnia. Variable over Russia, Austria, Italy, and south Germany; Northerly in Greece, with a gale at Athens. Southerly or South-Westerly over the Spanish Peninsula; South-Easterly in France. Subsequently veering to the South-Westward over England, and to the Westward or North-Westward on our western coasts.

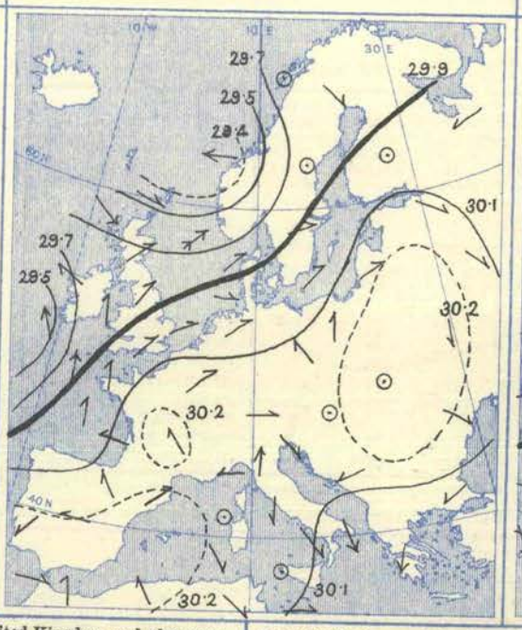
*Barometer* highest, 30·2 ins. and upwards over the eastern and southern parts of Germany; 30·1 ins. and upwards in an anticyclone covering the whole of eastern and central Europe, and also in another system over Spain. Lowest, 29·5 ins. and less in a well-marked depression with its centre over the south of Ireland, and also in another disturbance off the north of Scotland. Irish depression subsequently moving briskly in a north-easterly direction, and barometer rising on our western coasts.

## Friday, 19th May.

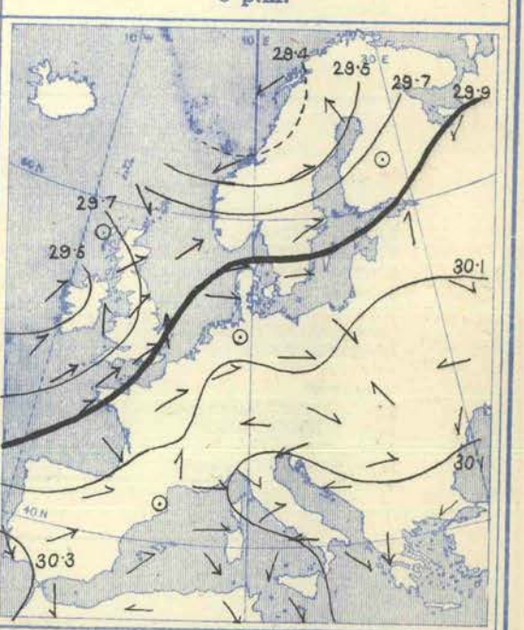
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine in the eastern and central parts of the United Kingdom, and also over all the more central and southern parts of the Continent. Dull and rainy on our western coasts; cloudy or dull also over Scandinavia, Denmark, and northern and central Russia, with rain at Stockholm and Moscow. Rain falling later over the whole of north-western Europe—heavily at many of our own western and northern stations.

*Temperature* fallen a little over England and the north of France, risen in most other localities. Morning readings highest, 75° at Toulon, Barcelona and Patras, 71° at Lesina, and 70° at Nice; above 65° at most of the Mediterranean and Adriatic stations. Lowest, 36° at Hernösand, 37° at Archangel, 40° at Haparanda, and 42° at Bodö. Rising during day to 60° or slightly above it in many parts of the United Kingdom, and to 64° in London and at Jersey. Exceeding 75° over Germany and the central and southern parts of France, and reaching 81° at Berlin and Biarritz.

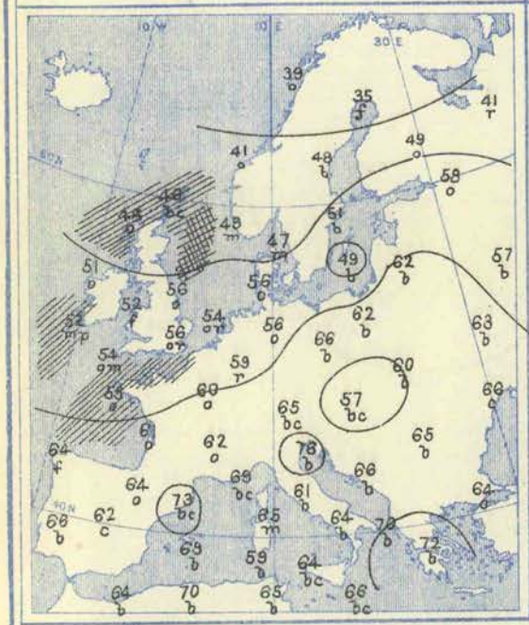
*Wind* Southerly over Ireland and England, and strong to a gale in force in the south of Ireland Light to moderate from the South-Westward on the east coasts of Great Britain, and also over the Netherlands, Denmark, and the south of Sweden; strong from the same quarter in the south of Norway; calm in the Gulf of Bothnia. Calm or variable over the greater part of central and southern Europe, but Northerly in Greece and strong in force at Athens. Subsequently veering to the South-Westward on our own south-west coasts; no important change occurring elsewhere.

*Barometer* highest, 30·1 ins. to 30·2 ins. and upwards in an anticyclone covering the whole of eastern, central and southern Europe. Lowest, 29·4 ins. and less in a depression lying off the west of Norway; 29·5 ins. and less in another disturbance off the south-west of Ireland. Former depression subsequently moving north-eastwards across Scandinavia. Irish disturbance moving slowly northwards.

## Saturday, 20th May.

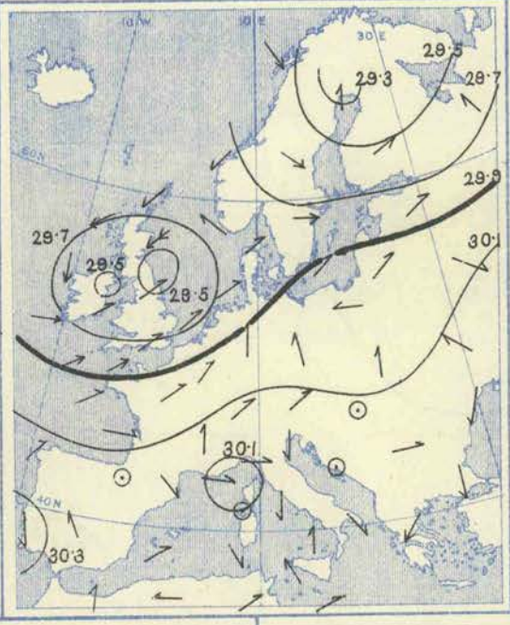
### Temperature and Weather.

8 a.m.

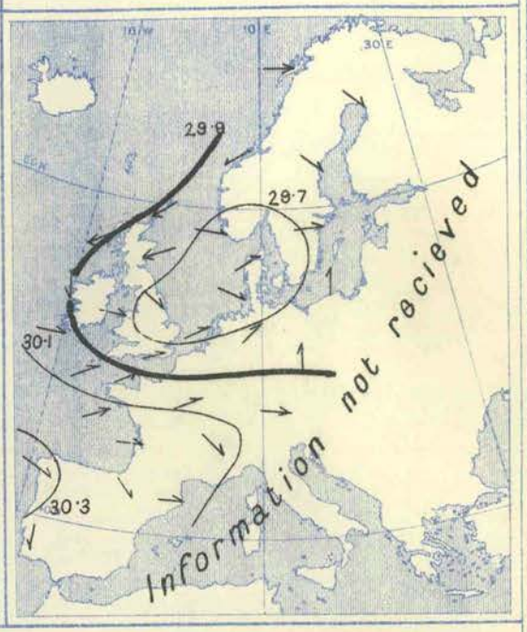


### Barometer and Wind.

8 a.m.



6 p.m.




*Weather* in morning very unsettled and rainy generally over our Islands, and unsettled over northern and north-western Europe; fine over the southern and south-eastern countries. Rain falling later in showers over our Islands and north-western Europe generally, but amounts not large, except in some parts of Scandinavia. Fog and haze setting in over the mouth of the Channel.

*Temperature* not changing much over our Islands, but rising over the northern and eastern parts of the Continent. Morning readings highest, 76° at Trieste, 73° at Barcelona, 72° in Greece, 70° at Algiers; above 60° over southern and south-eastern Europe generally; 56° to 50° over the English Channel and the west and south-west coasts of the British Isles, and over the Netherlands and north Germany. Lowest, 35° to 39° over Lapland, 41° at Archangel and in the north of Scotland. Exceeding 66° at only some of our southern stations later but rising to 69° at Paris, 79° at Berlin.

*Wind* North-Westerly to South-Westerly over Scandinavia; North-Easterly over Scotland; Northerly over the north of Ireland; Westerly to South-Westerly over France as a whole; variable over eastern and southern Europe. The North-Easterly current spreading a little to the southward at night; the South-Westerly wind in our Islands dying down.

*Barometer* highest, 30·3 ins. and more to 30·1 ins. in a complex high-pressure system covering south-western, southern and eastern Europe. Lowest, (1) 29·3 ins. and less to 29·6 ins. over northern Europe; (2) 29·5 ins. and less to 29·6 ins. in a complex disturbance passing across the northern parts of our Islands—gradients rather steep over the northern countries. Rising in the British Isles later, as the disturbance over the northern counties moved east-south-eastwards.

### GENERAL NOTES.

At the commencement of the week barometrical pressure was highest over Russia, the weather over western Europe being influenced by complex depressions which appeared over our Islands and the Bay of Biscay. Later on the high-pressure system over Russia moved southwards, while a new anticyclone spread north-eastwards from Spain and eventually embraced nearly the whole of central and southern Europe. In the latter regions the weather was therefore mostly fair, warm and dry, but in the north-western and northern countries, where it was affected by a series of depressions moving north-eastwards from the Atlantic, it was very changeable, with heavy rains in the west and north of our Islands. The most important depressions were (1) a well-marked system which was developed over the northern parts of Great Britain on the 15th, and which afterwards moved very slowly away to the northward; (2) a small secondary disturbance which passed quickly north-eastwards across England on the night of the 16th, and which occasioned fresh to strong South-Westerly gales over the English Channel; (3) a well-defined system, which travelled in a similar direction across Ireland and Scotland on the 18th; and (4) a complex disturbance, which appeared off our western coasts on the 19th, and which afterwards moved eastwards across the more northern parts of the United Kingdom. At the close of the week the last-mentioned disturbance was moving away to the North Sea, and a new high-pressure system was beginning to appear over our extreme northern coasts.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 116.

| Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 21·7 | ? | 19 | ? | WATERGATE (Emsworth) | 24·0 | ? | 22 | ? |
| STRATHPEFFER SPA | 15·7 | −23·4 | 14 | −20 | BRIGHTON | 33·3 | −15·0 | 31 | −14 |
| EDINBURGH | 27·5 | − 9·0 | 24 | − 9 | BOGNOR | 40·6* | ? | 38* | ? |
| MORPETH | 27·5 | ? | 25 | ? | WORTHING | 39·3 | ? | 36 | ? |
| NEWCASTLE-ON-TYNE | 18·6 | ? | 17 | ? | EASTBOURNE | 37·6 | −12·5 | 35 | −12 |
| OSWALDKIRK (Yorkshire) | 20·2 | −18·8 | 18 | −17 | VENTNOR HOSPITAL | 29·5 | ? | 27 | ? |
| HOLLESLEY BAY | 41·7 | ? | 38 | ? | SOUTHPORT | 29·4 | ? | 26 | ? |
| SHEFFIELD | 33·0 | ? | 30 | ? | COLWYN BAY | | ? | | ? |
| WORKSOP | 26·1 | −12·5 | 24 | −11 | ABERDOVEY | 38·8* | ? | 35* | ? |
| THURCASTON (Leicestershire) | 27·8 | −13·0 | 25 | −13 | TENBY | 44·3 | − 4·9 | 41 | − 5 |
| PLUMSTEAD COMMON | | ? | | ? | NEWQUAY | 37·5 | − 9·6 | 35 | −10 |
| MARGATE | 35·9 | − 7·9 | 33 | − 8 | TORQUAY | 35·8* | −12·6 | 33* | −13 |
| WESTBOURNE (Emsworth) | 33·7* | −12·2 | 36* | −12 | GUERNSEY | 46·3* | −12·5 | 44* | −13 |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| Date of Report. | Names of Stations. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| Week ending Mar. 18th, 1899 | Cranley | 62 | 27 | 54·1 | 33·0 | 43·2 | + 1·2 | 46 | 25 | 0 | — | ? | — | — | — | — |
| ,, ,, 25th, ,, | Colwyn Bay | — | — | — | — | — | — | — | — | — | — | — | 49·7 | ? | 58 | ? |
| ,, ,, April 1st, ,, | Tenby | — | — | — | — | — | — | — | — | — | — | — | 14·9 | −22·7 | 17 | −27 |
| ,, ,, ,, 8th, ,, | Cranley | 60 | 40 | 56·3 | 44·2 | 50·0 | + 5·3 | 56 | 0 | 4 | 0·46 | ? | — | — | — | — |
| ,, ,, ,, ,, ,, | Colwyn Bay | — | — | — | — | — | — | — | — | — | — | — | 20·4 | ? | 22 | ? |
| ,, ,, ,, ,, ,, | Newquay | — | — | — | — | — | — | — | — | — | — | — | 17·5 | −20·0 | 19 | −22 |

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 21.] *Third Series.* WEEK ENDING SATURDAY, MAY 27TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS (See p. 122.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 65 | 29 | 51·0 | 35·6 | 42·8 | 6 below | 32 | −15 | 18 | +14 | 328 | − 22 | 617 | + 3 |
| | 1. SCOTLAND, EAST | 65 | 27 | 50·1 | 35·6 | 42·4 | 8 below | 30 | −28 | 18 | +15 | 381 | − 65 | 669 | + 23 |
| | 2. ENGLAND, N.E. | 57 | 31 | 50·1 | 39·8 | 44·7 | 6 below | 28 | −31 | 6 | + 4 | 493 | + 57 | 456 | − 91 |
| | 3. ENGLAND, EAST | 65 | 34 | 54·9 | 42·7 | 48·4 | 4 below | 45 | −28 | 0 | − 3 | 665 | +100 | 421 | −193 |
| | 4. MIDLAND COUNTIES | 64 | 30 | 55·5 | 41·4 | 48·1 | 5 below | 45 | −30 | 2 | 0 | 657 | + 57 | 473 | −144 |
| | 5. ENGLAND SOUTH | 66 | 31 | 57·8 | 45·6 | 51·4 | 2 below | 66 | −14 | 0 | − 1 | 767 | +133 | 294 | −181 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 62 | 34 | 52·2 | 40·1 | 45·8 | 5 below | 35 | −29 | 5 | + 3 | 453 | − 31 | 413 | − 47 |
| | 7. ENGLAND, N.W. | 60 | 33 | 54·2 | 42·0 | 47·8 | 4 below | 41 | −26 | 0 | − 2 | 574 | + 75 | 313 | −144 |
| | 8. ENGLAND, S.W. | 63 | 34 | 56·5 | 46·9 | 51·4 | 1 below | 66 | − 8 | 0 | − 1 | 748 | +117 | 240 | −121 |
| | 9. IRELAND, NORTH | 64 | 33 | 54·9 | 41·9 | 48·0 | 3 below | 42 | −23 | 0 | − 1 | 562 | + 1 | 323 | − 70 |
| | 10. IRELAND, SOUTH | 64 | 32 | 58·6 | 44·7 | 51·2 | 2 below | 64 | − 8 | 0 | − 1 | 781 | + 89 | 245 | − 53 |
| | —CHANNEL ISLANDS | 60 | 45 | 57·7 | 50·2 | 53·7 | 1 below | 82 | + 2 | 0 | 0 | 1036 | +290 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 122.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 2 | 1 | 5 less | 95 | − 2 | 20·7 | + 2·1 | 50 | +11 | 42 | + 8 | 495 | + 44 | 28 | + 2 |
| | 1. SCOTLAND, EAST | 3 | 2 | 3 less | 92 | +15 | 14·9 | + 3·8 | 33 | − 8 | 28 | − 8 | 499 | + 10 | 30 | + 1 |
| | 2. ENGLAND, N.E. | 4 | 5 | 1 more | 85 | +11 | 10·2 | + 1·4 | 38 | − 6 | 33 | − 7 | 469 | − 17 | 28 | − 1 |
| | 3. ENGLAND, EAST | 5 | 7 | 2 more | 77 | + 5 | 9·2 | + 0·6 | 27 | −18 | 24 | −17 | 636 | + 51 | 36 | + 3 |
| | 4. MIDLAND COUNTIES | 4 | 8 | 2 more | 77 | + 8 | 11·6 | + 1·9 | 26 | −17 | 24 | −15 | 535 | + 45 | 33 | + 3 |
| | 5. ENGLAND, SOUTH | 3 | 3 | 2 less | 67 | 0 | 9·9 | − 0·3 | 31 | −17 | 28 | −16 | 645 | + 66 | 38 | + 4 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 3 | 4 | 3 less | 94 | +12 | 22·1 | + 3·8 | 24 | −19 | 21 | −18 | 482 | − 23 | 29 | − 1 |
| | 7. ENGLAND, N.W. | 4 | 8 | 2 more | 89 | +14 | 14·8 | + 3·5 | 26 | −17 | 23 | −16 | 541* | + 41 | 32 | + 2 |
| | 8. ENGLAND, S.W. | 4 | 7 | 2 more | 85 | +10 | 18·8 | + 4·8 | 29 | −20 | 27 | −18 | 613 | − 5 | 36 | 0 |
| | 9. IRELAND, NORTH | 4 | 8 | 2 more | 102 | +15 | 16·2 | + 3·0 | 33 | − 9 | 29 | − 8 | 539 | + 49 | 32 | + 3 |
| | 10. IRELAND, SOUTH | 4 | 8 | 2 more | 87 | + 6 | 19·3 | + 4·5 | 46 | + 1 | 41 | 0 | 606 | + 37 | 36 | + 2 |
| | — CHANNEL ISLANDS | 5 | 9 | 4 more | 81 | − 1 | 13·1 | + 1·1 | 43 | −25 | 39 | −23 | 704 | + 24 | 43 | + 2 |

*Bright Sunshine* —Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was unsettled, rainy and fairly mild in most parts of the Kingdom during the earlier half of the week, but subsequently became cold, fine, dry, and harsh generally. Thunder and lightning were experienced in many places at about the middle of the period.

*Temperature* was below the mean in all districts, the deficit ranging from 1° in England S.W. and the Channel Islands, to 5° in Scotland W. and the Midland Counties, 6° in Scotland N. and England N.E., and to as much as 8° in Scotland E. The highest of the maxima were recorded on the 23rd over England and Ireland, and on the 27th in Scotland; they ranged from 66° in England S. and 65° in Scotland N. and E. and England E., to 60° in the Channel Islands and England N.W., and to 57° in England N.E. The lowest of the minima were registered on the 27th, and ranged from 27° in Scotland E., 29° in Scotland N., and 30° in the Midland Counties, to 34° in Scotland W. and England E. and S.W., and to 45° in the Channel Islands.

*Rainfall* was less than the mean in Scotland, as well as in England S., but rather more than the normal in all other districts.

*Bright Sunshine* was again deficient over the Kingdom as a whole, but exceeded the mean in Scotland N., and just equalled it in Ireland S. The percentage of the possible duration ranged from 42 in Scotland N., 41 in Ireland S., and 39 in the Channel Islands, to 23 in England N.W, and 21 in Scotland W.

*Barometer and Wind.*—During the first half of the week shallow complex cyclonic systems passed slowly across Ireland and England from the westward, causing moderate South-Westerly and Westerly winds in the south, and light South-Easterly to Easterly winds in the north. As these disturbances moved on to Germany an anticyclone spread over our Islands from the Atlantic, and a cold Northerly current set in very generally and continued on all except our extreme western coasts until the end of the period.

207 | 90 Wy. & S., Ltd.
613 | 70 5 | 99

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 121 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 51 | 33 | 46·9 | 35·0 | 40·6 | − 5·8 | 14 | 25 | 3 | 0·41 | − 0·03 | * | * | * | * |
| | Stornoway | 59 | 33 | 51·3 | 37·0 | 43·7 | − 4·6 | 33 | 14 | 1 | 0·03 | − 0·57 | 64·8 | +23·0 | 54 | +18 |
| | Wick | 56 | 30 | 51·4 | 35·3 | 42·9 | − 5·4 | 34 | 19 | 4 | 0·08 | − 0·30 | * | * | * | * |
| | Lairg § | 65 | 29 | 51·0 | 32·8 | 41·4 | − 7·1 | 25 | 35 | 3 | 0·24 | − 0·26 | * | * | * | * |
| | Glencarron § | 57 | 32 | 50·4 | 34·6 | 42·0 | − 7·4 | 24 | 21 | 1 | 0·02 | − 1·15 | * | * | * | * |
| | Fort Augustus § | 63 | 31 | 52·2 | 36·1 | 43·7 | − 6·6 | 37 | 17 | 0 | — | − 0·42 | 34·4 | + 6·2 | 29 | + 4 |
| | Fort William § | 59 | 36 | 53·6 | 38·3 | 45·5 | − 5·7 | 40 | 10 | 1 | 0·03 | − 0·77 | 52·6 | +13·8 | 45 | +12 |
| 1. SCOTLAND E. | Nairn | 59 | 29 | 51·0 | 35·0 | 42·5 | − 8·2 | 33 | 20 | 0 | — | − 0·42 | * | * | * | * |
| | Aberdeen | 56 | 32 | 49·1 | 36·0 | 42·2 | − 7·7 | 27 | 17 | 5 | 0·20 | − 0·28 | 41·6 | − 2·4 | 36 | − 2 |
| | Braemar § | 56 | 27 | 45·3 | 30·5 | 37·5 | −10·3 | 9 | 40 | 3 | 0·17 | − 0·31 | 13·0† | −28·3† | 11† | −25† |
| | Ochtertyre § | 65 | 32 | 54·1 | 35·4 | 44·2 | − 7·3 | 43 | 18 | 2 | 0·13 | − 0·48 | * | * | * | * |
| | Leith | 59 | 38 | 52·4 | 39·9 | 45·8 | − 5·9 | 35 | 6 | 2 | 0·15 | − 0·29 | * | * | * | * |
| | Marchmont § | 54 | 35 | 48·6 | 36·7 | 42·3 | − 7·2 | 24 | 15 | 3 | 0·38 | − 0·22 | 41·3 | − 0·8 | 36 | − 1 |
| 2. ENGLAND, N.E. | Alnwick Castle | 57 | 31 | 51·1 | 39·3 | 44·9 | − 4·6 | 32 | 8 | 3 | 0·48 | − 0·06 | * | * | * | * |
| | Durham | 54 | 33 | 49·2 | 37·4 | 43·0 | − 7·9 | 26 | 13 | 5 | 0·67 | + 0·15 | 37·9 | − 1·9 | 33 | − 2 |
| | Shields | 55 | 36 | 48·7 | 39·7 | 43·9 | − 5·8 | 23 | 6 | 2 | 0·48 | + 0·06 | * | * | * | * |
| | Scarborough ℳ | 52 | 35 | 49·8 | 39·2 | 44·2 | − 6·5 | 27 | 8 | 5 | 0·62 | + 0·12 | ? | | ? | ? |
| | York | | | | | | | | | | | | | | | |
| | Spurn Head | 57 | 41 | 51·9 | 43·6 | 47·5 | − 3·2 | 39 | 0 | 4 | 0·38 | − 0·04 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 65 | 38 | 57·2 | 41·6 | 48·9 | − 3·6 | 50 | 1 | 6 | 0·41 | − 0·09 | 31·2 | −16·7 | 28 | −15 |
| | Yarmouth | 56 | 42 | 52·7 | 43·9 | 48·0 | − 3·7 | 42 | 0 | 5 | 0·96 | + 0·49 | * | * | * | * |
| | Geldeston | 64 | 37 | 54·7 | 42·5 | 48·2 | − 4·1 | 43 | 0 | 7 | 0·32 | − 0·13 | 30·0 | −21·2 | 27 | −20 |
| | Cambridge | | | | | | | | | | | | | | | |
| | Felixstowe | 59 | 36 | 54·4 | 43·4 | 48·6 | − 3·7 | 46 | 0 | 4 | 0·59 | ? | 20·3 | ? | 18 | ? |
| | Rothamsted | 64 | 34 | 55·6 | 42·1 | 48·5 | − 4·0 | 46 | 0 | 4 | 1·14 | + 0·66 | 26·3 | −18·7 | 24 | −17 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 64 | 31 | 55·7 | 39·4 | 47·1 | − 6·2 | 47 | 7 | 4 | 0·41 | − 0·11 | * | * | * | * |
| | Loughborough | 64 | 31 | 55·4 | 40·0 | 47·2 | − 6·8 | 45 | 6 | 4 | 1·54 | + 1.04 | * | * | * | * |
| | Stamford (Duddington) | 64 | 33 | 55·9 | 41·0 | 48·0 | − 5·2 | 46 | 3 | 4 | 0·64 | + 0·09 | * | * | * | * |
| | Cheadle ℳ | 58 | 35 | 52·0 | 39·4 | 45·3 | − 5·7 | 34 | 7 | 4 | 1·14 | + 0·55 | * | * | * | * |
| | Shirley (near Solihull) | 61 | 30 | 55·3 | 40·3 | 47·4 | − 5·8 | 45 | 5 | 4 | 0·63 | ? | * | * | * | * |
| | Churchstoke ℳ | 60 | 35 | 55·1 | 42·3 | 48·3 | − 2·8 | 44 | 0 | 5 | 0·88 | + 0·33 | 24·5 | −18·5 | 22 | −17 |
| | Hereford ℳ | 63 | 33 | 56·9 | 42·8 | 49·4 | − 4·1 | 52 | 0 | 5 | 0·61 | + 0·08 | * | * | * | * |
| | Cirencester | 62 | 35 | 56·3 | 43·9 | 49·7 | − 2·1 | 54 | 0 | 4 | 0·65 | + 0·12 | 24·3 | −21·5 | 22 | −20 |
| | Oxford | 63 | 35 | 57·1 | 43·9 | 50·1 | − 3·1 | 57 | 0 | 4 | 0·44 | − 0·06 | 27·2 | −17·5 | 25 | −16 |
| 5. ENGLAND, S. | London | 66 | 36 | 59·1 | 45·1 | 51·7 | − 2·9 | 68 | 0 | 4 | 0·38 | − 0·08 | 24·9† | −16·8† | 22† | −16† |
| | Cranley ℳ | 65 | 31 | 58·5 | 44·5 | 51·1 | − 2·9 | 64 | 0 | 4 | 0·18 | ? | * | * | * | * |
| | Dungeness | 60 | 35 | 56·9 | 45·4 | 50·8 | − 2·4 | 62 | 0 | 2 | 0·03 | − 0·42 | * | * | * | * |
| | Hastings (St. Leonards) | 60 | 37 | 56·6 | 45·1 | 50·5 | − 2·5 | 60 | 0 | 2 | 0·22 | − 0·23 | 38·3 | −15·8 | 35 | −15 |
| | Southampton | 66 | 38 | 60·6 | 46·6 | 53·2 | − 1·3 | 78 | 0 | 2 | 0·35 | − 0·10 | 29·3 | −20·2 | 27 | −19 |
| | Hurst Castle | 62 | 39 | 57·6 | 48·4 | 52·7 | − 1·0 | 75 | 0 | 3 | 0·07 | − 0·36 | * | * | * | * |
| | Shaftesbury ℳ | 61 | 37 | 55·4 | 44·4 | 49·6 | − 2·4 | 53 | 0 | 3 | 0·52 | + 0·10 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 55 | 34 | 52·7 | 38·8 | 45·3 | − 6·1 | 37 | 9 | 1 | 0·01 | − 0·87 | * | * | * | * |
| | Glasgow | 59 | 39 | 50·2 | 40·4 | 45·0 | − 5·7 | 28 | 4 | 2 | 0·27 | − 0·39 | 16·9 | −19·4 | 15 | −17 |
| | Glenlee § | 62 | 35 | 52·4 | 39·3 | 45·5 | − 5·0 | 36 | 8 | 3 | 0·71 | − 0·09 | * | * | * | * |
| | Douglas (Isle of Man) | 60 | 38 | 53·4 | 41·7 | 47·2 | − 3·8 | 38 | 1 | 4 | 0·61 | + 0·04 | 30·5 | −19·7 | 27 | −18 |
| 7. ENGLAND, N.W. | Stonyhurst | 56 | 36 | 52·2 | 40·4 | 46·0 | − 5·7 | 35 | 4 | 4 | 0·95 | + 0·21 | 20·9 | −22·9 | 18 | −21 |
| | Blackpool ℳ | 59 | 33 | 55·8 | 39·7 | 47·5 | − 4·2 | 48 | 6 | 4 | 0·59 | + 0·09 | 25·5 | −18·5 | 22 | −17 |
| | Manchester (Prestwich) | 60 | 33 | 54·4 | 39·5 | 46·5 | − 5·4 | 42 | 7 | 4 | 1·00 | + 0·35 | 19·6 | ? | 17 | ? |
| | Liverpool Obsy. (Bidston) | 59 | 39 | 54·0 | 42·4 | 47·9 | − 4·8 | 41 | 0 | 4 | 0·73 | + 0·23 | 21·7 | ? | 19 | ? |
| | Llandudno ℳ | 58 | 41 | 54·5 | 45·1 | 49·5 | − 3·3 | 53 | 0 | 4 | 0·86 | + 0·38 | 33·1 | −10·4 | 30 | − 9 |
| | Holyhead | 58 | 42 | 54·1 | 45·0 | 49·3 | − 3·1 | 51 | 0 | 4 | 0·39 | − 0·09 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 61 | 34 | 57·7 | 44·9 | 50·9 | − 1·9 | 62 | 0 | 5 | 0·65 | − 0·05 | * | * | * | * |
| | Pembroke | 57 | 42 | 54·3 | 47·9 | 50·9 | − 1·0 | 62 | 0 | 2 | 0·27 | − 0·23 | 37·6 | −12·1 | 34 | −11 |
| | Clifton | 63 | 40 | 58·2 | 47·0 | 52·3 | − 0·4 | 72 | 0 | 5 | 0·75 | + 0·18 | * | * | * | * |
| | Arlington (N. Devon) | 60 | 35 | 56·6 | 45·0 | 50·5 | − 1·0 | 60 | 0 | 5 | 0·76 | + 0·03 | * | * | * | * |
| | Cullompton ℳ | 63 | 35 | 57·8 | 46·3 | 51·7 | − 1·7 | 68 | 0 | 5 | 0·67 | + 0·25 | 19·2 | −26·3 | 17 | −25 |
| | Falmouth | 61 | 44 | 57·3 | 49·4 | 53·1 | − 0·1 | 78 | 0 | 4 | 0·59 | + 0·09 | 38·8 | −13·2 | 36 | −12 |
| | Plymouth | 62 | 41 | 54·9 | 48·4 | 51·5 | − 3·2 | 67 | 0 | 5 | 0·71 | + 0·23 | 23·2 | −25·0 | 21 | −24 |
| | Prawle Point | 59 | 40 | 55·4 | 46·3 | 50·6 | − 1·9 | 60 | 0 | 4 | 1·11 | + 0·73 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 55 | 41 | 50·9 | 42·3 | 46·3 | − 4·7 | 30 | 0 | 4 | 0·34 | ? | * | * | * | * |
| | Londonderry | 63 | 36 | 57·0 | 40·8 | 48·4 | − 4·1 | 50 | 3 | 4 | 0·85 | + 0·25 | * | * | * | * |
| | Edenfel (Omagh) | 64 | 33 | 56·0 | 40·7 | 47·9 | − 1·8 | 47 | 4 | 4 | 1·20 | + 0·60 | * | * | * | * |
| | Belmullet | 58 | 40 | 55·7 | 44·4 | 49·7 | − 2·2 | 54 | 0 | 5 | 1·26 | + 0·56 | * | * | * | * |
| | Markree Castle | 59 | 34 | 57·9 | 41·4 | 49·2 | − 1·8 | 53 | 2 | 5 | 0·92 | + 0·30 | 37·0 | − 4·8 | 32 | − 5 |
| | Armagh | 61 | 33 | 54·7 | 40·9 | 47·4 | − 4·1 | 42 | 3 | 4 | 0·89 | + 0·39 | 29·0 | − 11·7 | 25 | −11 |
| | Donaghadee | 54 | 41 | 52·1 | 43·1 | 47·3 | − 4·4 | 37 | 0 | 4 | 0·36 | − 0·20 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 62 | 38 | 58·0 | 45·7 | 51·5 | − 1·8 | 67 | 0 | 4 | 0·52 | + 0·02 | 42·0 | − 5·0 | 38 | − 5 |
| | Parsonstown | 64 | 34 | 59·3 | 42·9 | 50·6 | − 1·6 | 60 | 0 | 4 | 1·13 | + 0·53 | 49·8 | + 9·0 | 44 | +8 |
| | Kilkenny | 62 | 32 | 58·1 | 42·9 | 50·0 | − 2·5 | 56 | 0 | 4 | 0·85 | + 0·35 | * | * | * | * |
| | Roche's Point | 60 | 40 | 57·6 | 46·7 | 51·8 | − 2·0 | 69 | 0 | 4 | 0·96 | + 0·24 | * | * | * | * |
| | Valencia | 60 | 40 | 57·4 | 46·7 | 51·7 | − 1·9 | 68 | 0 | 3 | 0·75 | + 0·13 | 45·1 | − 1·9 | 41 | − 2 |
| | Killarney | 63 | 34 | 60·2 | 43·7 | 51·5 | − 1·5 | 67 | 0 | 4 | 0·72 | ? | * | * | * | * |
| | Foynes | 64 | 35 | 59·6 | 44·3 | 51·5 | − 0·7 | 67 | 0 | 4 | 0·58 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 60 | 45 | 58·7 | 49·9 | 54·0 | + 0·4 | 84 | 0 | 4 | 0·49 | + 0·09 | 59·6 | ? | 55 | ? |
| | Jersey | 60 | 45 | 56·6 | 50·4 | 53·3 | − 1·3 | 79 | 0 | 5 | 1·25 | + 0·77 | 30·5 | − 26·3 | 28 | −25 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

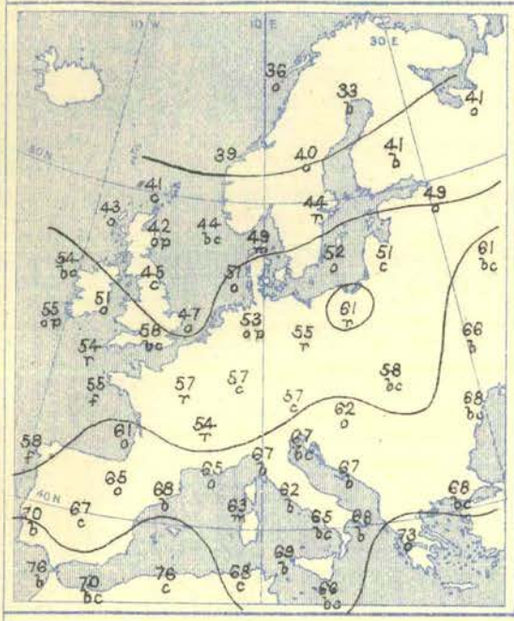
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 21st May.

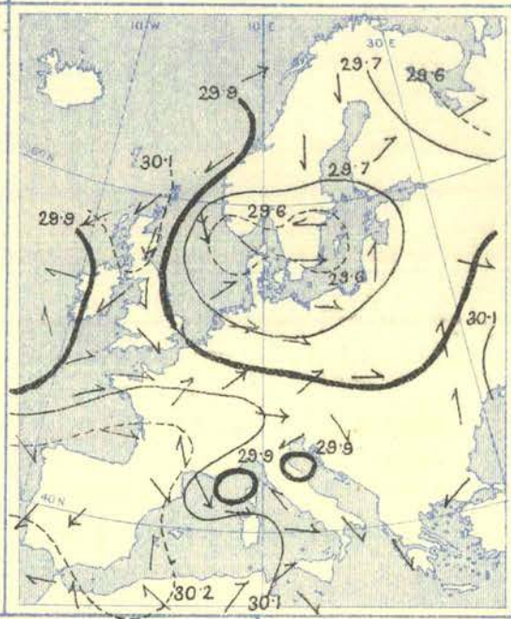
### Temperature and Weather.

8 a.m.

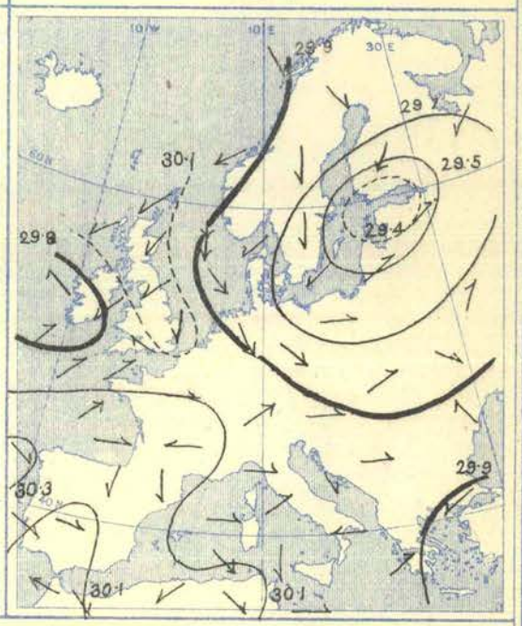


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning changeable and unsettled over the northern and north-western countries of Europe, as well as over the east of France and in Germany. Fair over Spain and Portugal and over eastern Europe. A great deal of rain falling later over the former countries—the falls being very heavy in the north-east of France.

*Temperature* in morning highest, 76° at Algiers and Palma, and much above 60° over the Mediterranean generally; 52° to 58° over the south and south-west of our Islands. Lowest, 35° to 40° over Lapland and the northern parts of Norway and Sweden, 41° at Kuopio and Sumburgh Head, 42° at Wick, 43° at Aberdeen, 45° to 46° over the north of England. Rising later to 60° at very few of our southern stations, but to 63° at Berlin, to 69° at Paris, and to 84° at Perpignan.

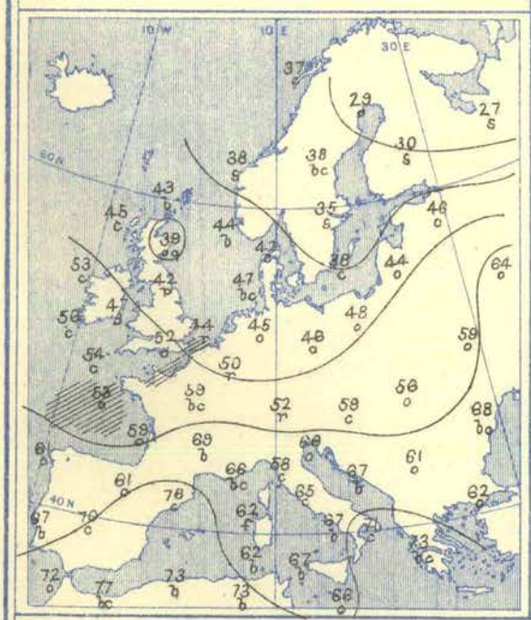
*Wind* very variable—the main currents being Westerly and South-Westerly over France and Germany, North-Easterly to Easterly over our northern districts; Easterly to Southerly in Ireland, and very complex over the Baltic and eastern parts of the North Sea and northern parts of the Baltic.

*Barometer* highest, (1) 30·2 ins. and more to 30·1 ins. over south-western Europe; (2) 30·0 ins. and more over Scotland and the neighbourhood. Lowest, (1) 29·6 ins. and less in a complex depression covering Denmark and the southern parts of Scandinavia; (2) 29·8 ins. and less in another disturbance advancing towards our western coasts. Falling at our western stations later, rising over the North Sea.

## Monday, 22nd May.

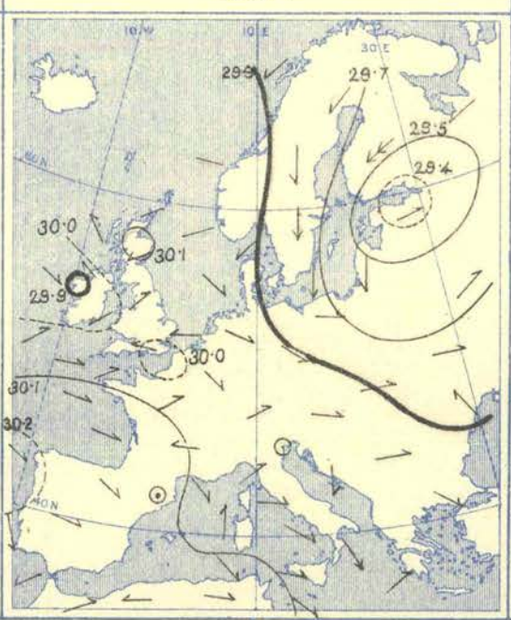
### Temperature and Weather.

8 a.m.

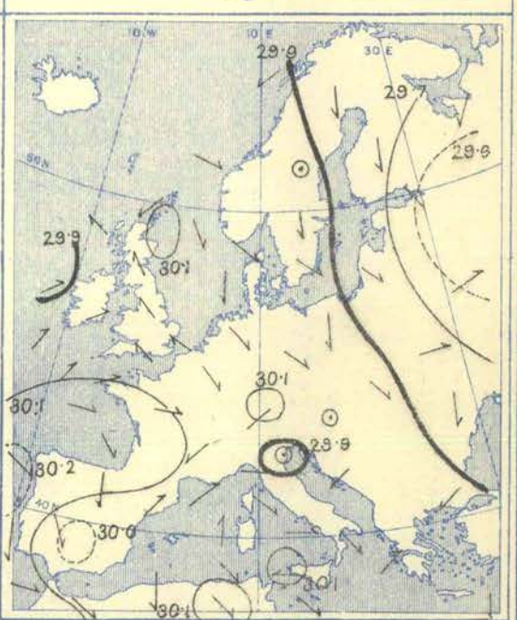


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning changeable and rather unsettled over the United Kingdom generally and over the northern countries of Continental Europe as a whole; rainy in France; showery over our north-eastern and north-western counties; squally at Aberdeen. Rain falling sporadically in the south of France and over northern Europe; small quantities at many of our own stations, and considerable amounts at Parsonstown, Prawle Point, Loughborough and Yarmouth.

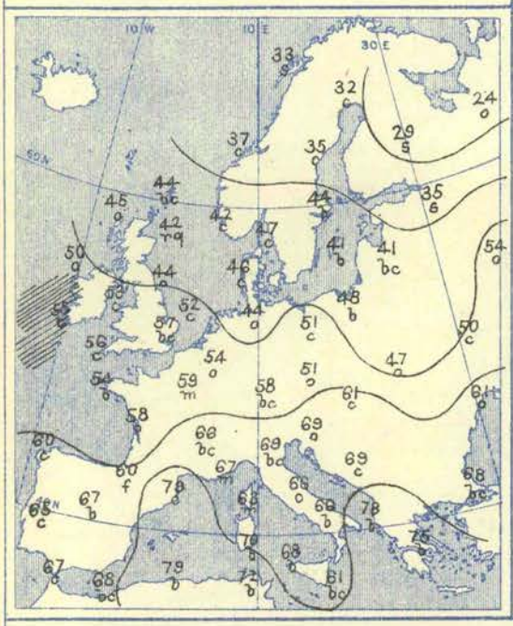
*Temperature* beginning to fall in the north-east and over France. Morning readings highest, 76° at Palma, and exceeding 70° at many of the Mediterranean stations; 56° to 53° on our south-western and southern coasts. Lowest, 27° at Archangel, 29° at Haparanda, 38° at Helsingfors and Wisby, 39° at Aberdeen, 42° to 44° on the east coast of England. Rising later to 64° at Loughborough, and 66° in London, to 68° at Paris, and to 82° at Perpignan, and touching 89° at Cagliari and 91° at Laghouat.

*Wind* mainly light and anticyclonic over south-western Europe; cyclonic over the northern and north-western countries, where the Westerly and South-Westerly current was greatly mixed with cold winds encroaching from the Northward; North-Easterly in Norway and the north of our Islands.

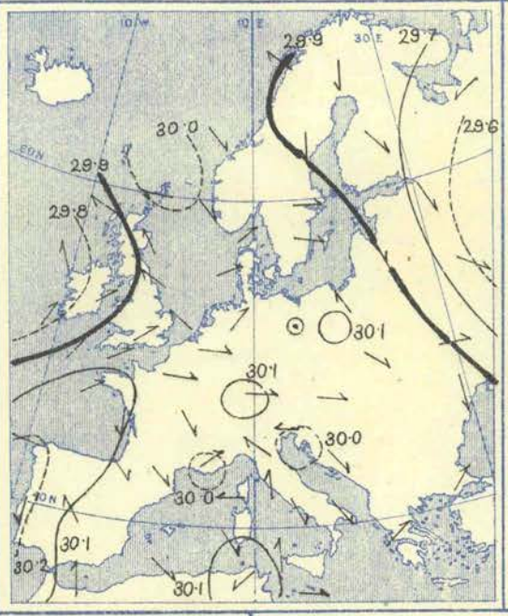
*Barometer* highest, 30·3 ins. and more in the Azores; 30·2 ins. and more to 30·1 ins. over south-western Europe as a whole. Lowest, (1) below 30·0 ins. in two depressions—one over Ireland, the other over the south-east of England and Belgium; (2) 29·4 ins. and less to 29·6 ins. in a depression over the north of Russia and Gulf of Finland. Some secondary disturbances forming over central Europe later.

## Tuesday, 23rd May.

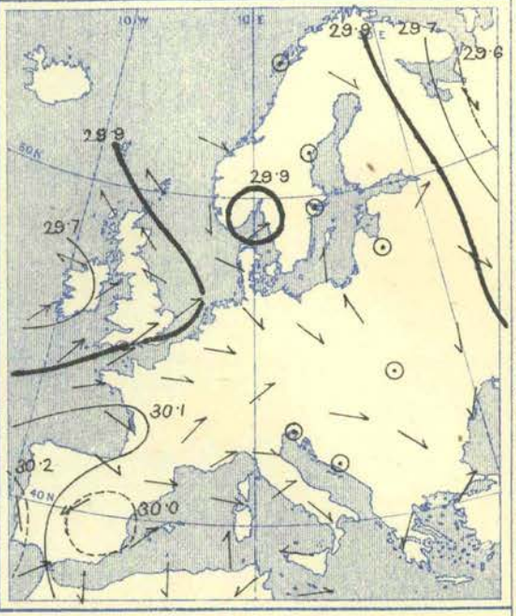
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning continuing in a very changeable condition over our Islands generally; fair, but cloudy, over south-western and central Europe, unsettled over Russia and Lapland, with snow in several places. Rain falling later in almost all parts of our Islands and their neighbourhood—heavily at Belmullet, Loughborough and Yarmouth, rather heavily in the south of France.

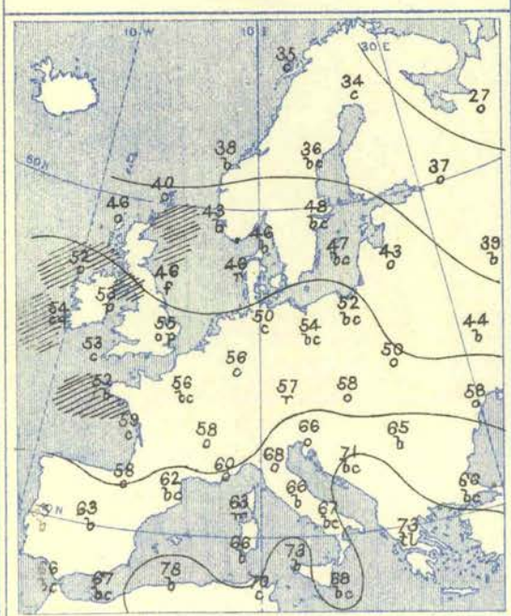
*Temperature* risen over England, fallen over Russia. Morning readings highest, 79° at Algiers and Barcelona, 78° at Brindisi, 69° to 60° in the south of France, 57° to 50° on the southern and western coasts of our Islands, and 62° to 58° in the south of Russia. Lowest, 24° at Archangel, 30° to 35° over the northern parts of Scandinavia, 41° at Wisby, 42° at Aberdeen—low over the northern countries generally. Rising later to between 60° and 66° over England, to 68° at Paris, 76° at Lyons, 82° at Perpignan.

*Wind* (1) North-Westerly to Westerly over Finland and Russia; (2) South-Westerly to South-Easterly over our Islands; (3) very light and variable over the central and southern parts of Europe. Not much change later.

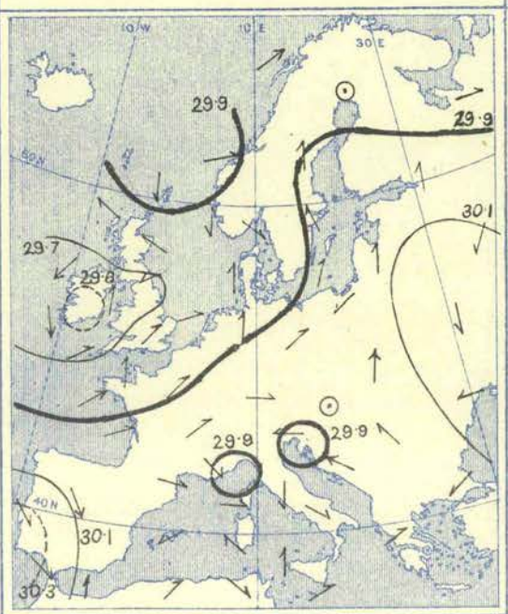
*Barometer* highest, 30·2 ins. and more in Portugal, and exceeding 30·0 ins. over the whole of France, central Europe, the south of our Islands, and the Baltic. Lowest, (1) 29·6 ins. and less in a shallow depression over central Russia; (2) 29·8 ins. and less over the west of Ireland, and some very small shallow disturbances shown over the northern parts of the Mediterranean and Adriatic. Falling continuously over our Islands and their neighbourhood during the day.

## Wednesday, 24th May.

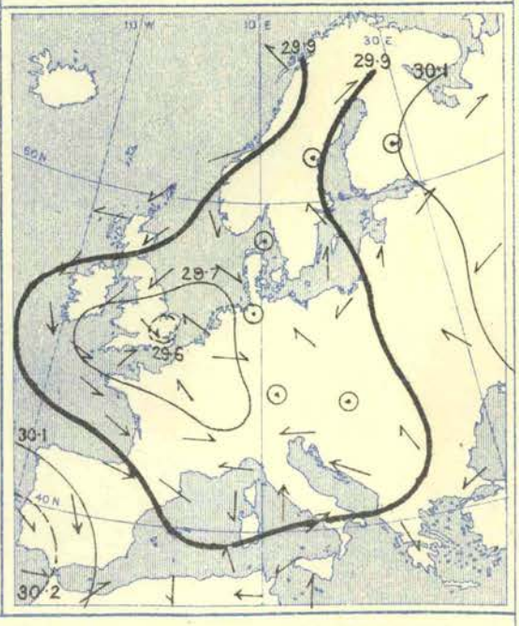
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning very cloudy, changeable and unsettled over the United Kingdom generally and its neighbourhood; fair as a whole over Scandinavia, fine and bright over Russia. Showers later over nearly the whole of our Islands, and a great deal of rain at night over our southern counties and the northern half of France (1·10 ins. at Lorient).

*Temperature* not changing decidedly anywhere in morning, but falling later on. Morning readings highest, exceeding 70° on the southern and western sides of the Mediterranean, exceeding 60° over southern Europe, and exceeding 50° over the central countries and the southern half of our Islands. Lowest, 27° at Archangel, 34° to 38° over northern Europe generally, 40° to 42° in the north-east of Scotland, 46° at Shields. Not reaching 60° later in the day over the bulk of our Islands, but touching 63° in London; 67° at Paris, 68° at Berlin and 72° in the south of France.

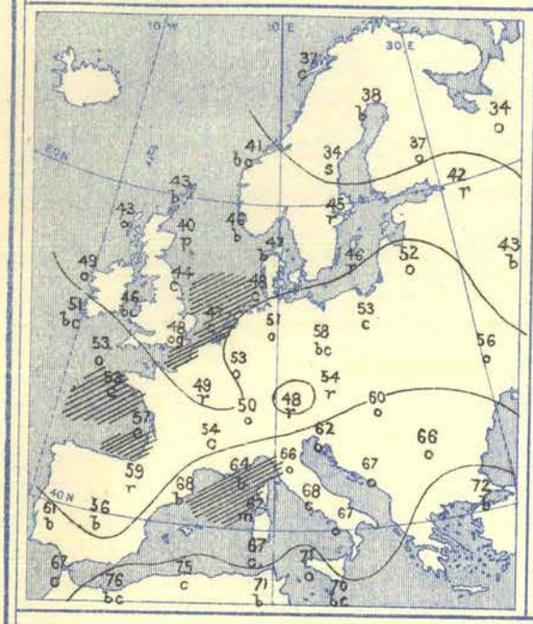
*Wind* light and variable over central, south-eastern and eastern Europe, moderate to fresh (and completely cyclonic) over the British Isles—Westerly to Southerly in the south, Easterly in the north, Northerly in the far west. The cyclonic circulation moving East-South-East wards later.

*Barometer* (1) highest, 30·2 ins. and more to 30·0 ins. over Spain; 30·1 ins. and more to 30·0 ins. over southern Russia; (2) exceeding 29·9 ins. over the Shetlands and west of Norway. Lowest, 29·6 ins. and less to 29·7 ins. in a complex depression over Ireland and the north of England. The depression moving East-South-East all day and barometer rising in Ireland and west of Scotland.

## Thursday, 25th May.

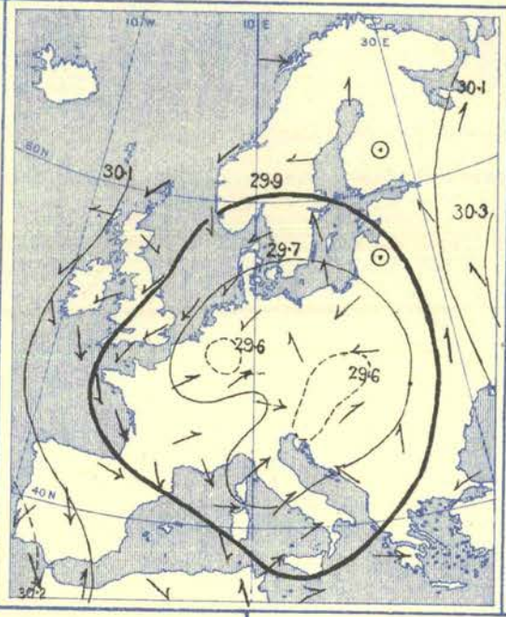
### Temperature and Weather.

8 a.m.

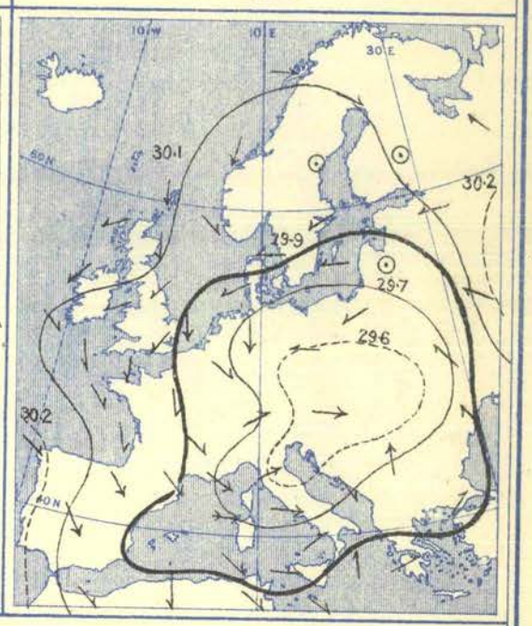


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine except at one or two of our north-eastern and eastern coast stations, unsettled and rainy over central Europe and the south-east of France. Slight showers later in many parts of Europe and a few parts of the British Isles; large falls at Prawle Point, Brussels, and Munich.

*Temperature* fallen decidedly over our Islands and France, risen over Russia and the eastern parts of Europe. Morning readings highest, 76° at Oran, and between 70° and 60° over the greater part of the Mediterranean; between 50° and 60° over the western and central parts of Europe and the south of the British Isles. Lowest, 34° at Archangel and Hernösand, and 37° at Bodö. Not touching 60° later in any part of our Islands or the north of France, but reaching 70° at Berlin and 72° at Nice.

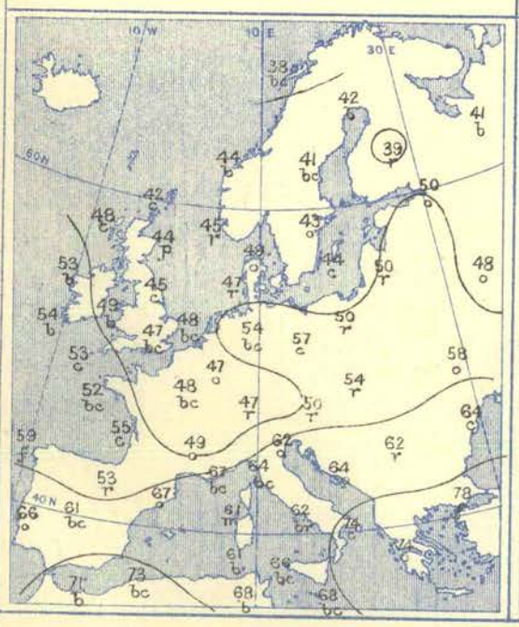
*Wind* North-Easterly to Northerly over the United Kingdom and the North Sea; North-Westerly to South-Westerly in the southern parts of France, Easterly and South-Easterly over north Germany and the Baltic. Local variations observed later in the south of Ireland, but, as a rule, the North-Easterly current of wind, spreading south-eastwards.

*Barometer* in morning highest, (1) 30·37 ins. in the Azores, and exceeding 30·2 ins. in Portugal; (2) 30·3 ins. and more to 30·6 ins. over Russia. Lowest below 29·6 ins. in a complicated series of depressions over central Europe and the south-east of France. Rising during day over the British Islands as a whole and the North Sea, but unsteady in the southwest of our Islands at evening.

## Friday, 26th May.

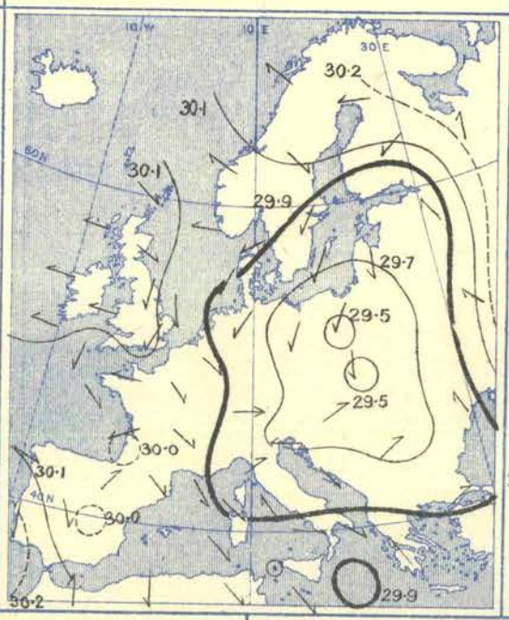
### Temperature and Weather.

8 a.m.

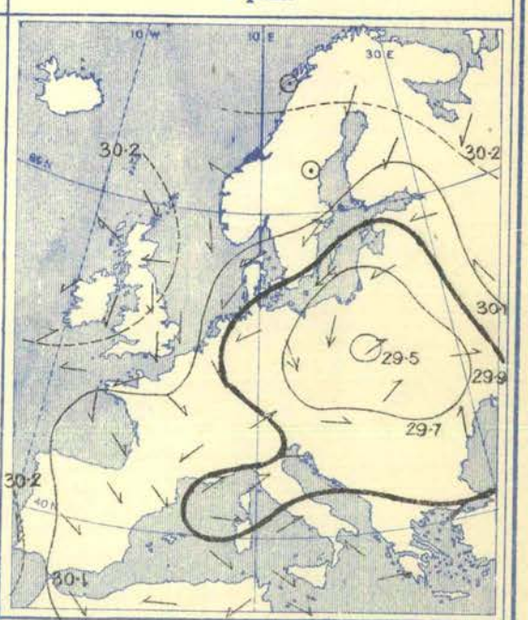


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over our Islands, except slight showers at some eastern stations. Less fair over the Continent, with rain both over central Europe and the south-west of France. Rain falling in those regions later, and also at Jersey and in the south of France; fair dry weather prevalent in our Islands.

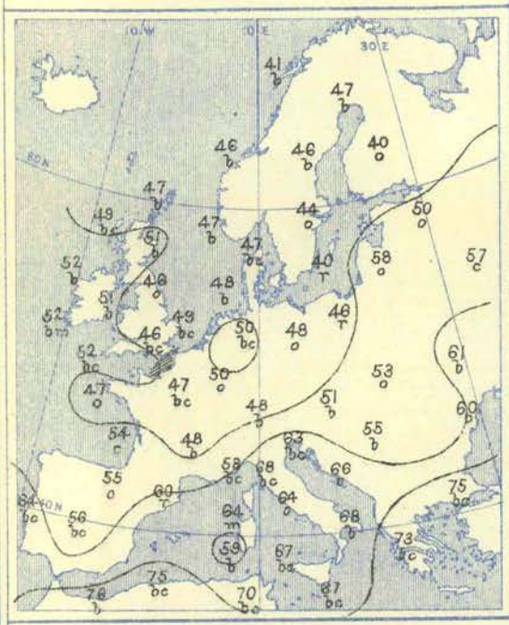
*Temperature* fallen over France and central Europe, very low over England in early morning. Morning readings highest, 78° at Constantinople, about 73° in Greece and Algiers, and exceeding 60° over the Mediterranean generally, 55° to 52° in the west of France and extreme south-west and west of our Islands, 58° to 50° over central Europe. Failing to touch 60° in our Islands all day, and falling to below the freezing point at some inland stations during the night. Rising during afternoon to 63° at Brest, and 72° at Nice and Perpignan, 79° at Brindisi, 90° at Laghouat.

*Wind* very light and anticyclonic over the west and north of our Islands; Northerly and North-Easterly over England and the North Sea; North-Westerly in France; Westerly (strong) over central Europe. Southerly to South-Easterly over Russia. Little change later in our Islands, but the Northerly wind over the Baltic increasing in force.

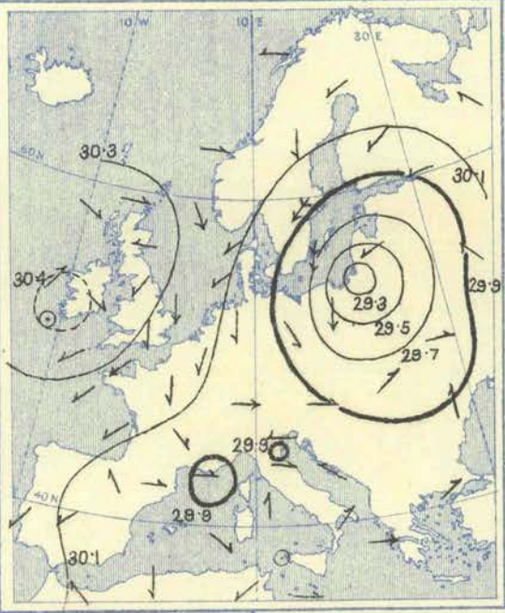
*Barometer* in morning highest, 30·1 ins. and more over nearly the whole of our Islands, and exceeding 30·0 ins. over the United Kingdom, France, and Spain as a whole (some shallow local depressions being in the south-west of France and central Spain). Lowest, 29·5 ins. and less to 29·6 ins. in a complex depression over central Europe, and in a secondary over the Riviera. Rising over most countries later, and depression over central Europe moving towards Russia.

## Saturday, 27th May.

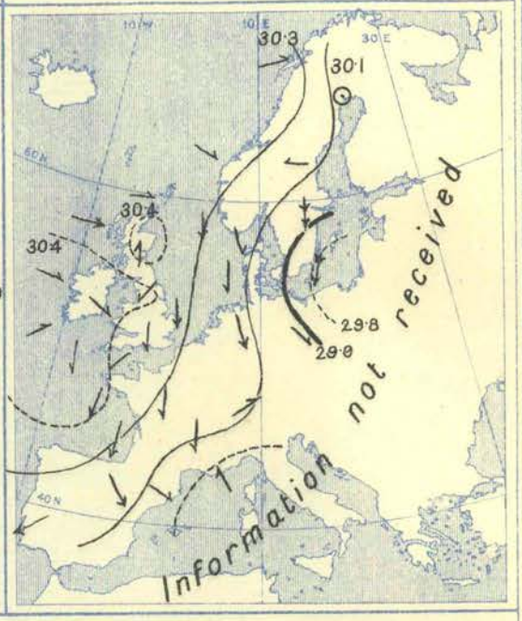
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### 6 p.m.




*Weather* in morning fine and dry over northern Europe, the British Isles and their neighbourhood, and over southern Europe, dull and unsettled over the central countries. Continuing fine and dry in our Islands later, but rain falling in considerable quantity (1) in the south of Sweden and at Brussels, (2) at Biarritz. A thunderstorm at the latter station.

*Temperature* low over the United Kingdom. Morning readings highest, 76° at Oran, and exceeding 69° over the Mediterranean generally and the south of Russia; 52° to 56° in the south and west of our Islands, 53° at Leith. Lowest, 49° at Wisby and Kuopio, and below 50° over nearly the whole of northern Europe and the north of Scotland. Not reaching 60° at any of our own stations later, but touching 61° at Berlin, 64° at Rochefort, 67° at Perpignan, 76° at Lisbon.

*Wind* (1) anticyclonic over the British Islands; Northerly to Easterly over England; variable in Ireland and Scotland; (2) cyclonic North-Easterly over Finland, Sweden, and the eastern shores of the North Sea; North-Westerly to South-Westerly over Germany; blowing a gale at Stockholm and Wisby; (3) very variable over southern Europe. Moderating in force over England later, but gale continuing at Stockholm.

*Barometer* highest, 30·4 ins. and more over Ireland, and exceeding 30·2 ins. all over our Islands, the west of Norway, and the north-west of France, and exceeding 30·0 ins. over the Spanish Peninsula and south-eastern parts of the Mediterranean. Lowest, 29·3 to 29·5 ins. in a depression having its centre near Memel. Gradients steep over north Germany and the southern part of the Baltic; still increasing over our Islands later, and over the North Sea and France.

### GENERAL NOTES.

During the first part of the week pressure was highest over south-western Europe, and rather high in a small area covering the north of our Islands or the region between them and Norway. It was lowest over Russia at first, but on Monday and Wednesday shallow complex depressions came in from the westward, causing mild, showery weather over this country, France, and Germany, but colder weather over the more northern countries, and in several places thunderstorms.

On Thursday, however, the barometer began to rise quickly on our western and northern coasts and in Norway, and as the rise spread an anticyclone of considerable intensity, and increasing daily in size, extended over our Islands from the north-westward. The effect of this system was to clear away the rainfall, gradually, from our coasts, though it still continued over Belgium and Germany, and its eastern side (in conjunction with the depressions over central Europe) caused cold Northerly winds over Great Britain. These, owing to clear skies at night, produced some rather smart frosts inland. At the close of the week there was little change in these Islands, but the German weather seemed likely to improve.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 122.

| Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 61·9 | ? | 51 | ? | WATERGATE (Emsworth) | 23·2 | ? | 21 | ? |
| STRATHPEFFER SPA | 38·2 | − 1·0 | 32 | − 2 | BRIGHTON | 35·5 | −13·6 | 32 | −13 |
| EDINBURGH | 34·2 | − 3·1 | 29 | − 4 | BOGNOR | 32·3* | ? | 29* | ? |
| MORPETH | 46·4 | ? | 40 | ? | WORTHING | 30·4 | ? | 28 | ? |
| NEWCASTLE-ON-TYNE | 38·1 | ? | 33 | ? | EASTBOURNE | 38·8 | −12·6 | 35 | −12 |
| OSWALDKIRK (Yorkshire) | 31·2 | − 8·6 | 27 | − 8 | VENTNOR HOSPITAL | 30·7 | ? | 28 | ? |
| HOLLESLEY BAY | 27·4 | ? | 25 | ? | SOUTHPORT | 20·2 | ? | 18 | ? |
| SHEFFIELD | 25·9 | ? | 23 | ? | COLWYN BAY | 34·7 | ? | 31 | ? |
| WORKSOP | 26·6 | −13·2 | 24 | −12 | ABERDOVEY | 34·0* | ? | 30* | ? |
| THURCASTON (Leicestershire) | 28·5 | −13·2 | 25 | −13 | TENBY | | | | |
| MARGATE | 27·4 | −17·4 | 25 | −16 | NEWQUAY | | | | |
| WESTBOURNE (Emsworth) | 30·0* | −21·4 | 27* | −21 | TORQUAY | 27·4* | −22·8 | 25* | −21 |
| | | | | | GUERNSEY | 37·9* | −22·3 | 35* | −22 |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| Date of Report. | Names of Stations. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Inches. | Inches. | | | | |
| Week ending April 15th, 1899 | Morpeth | — | — | — | — | — | — | — | — | — | — | — | 22·2 | ? | 23 | ? |
| " " " 22nd, " | Edinburgh | — | — | — | — | — | — | — | — | — | — | — | 36·7 | + 8·2 | 37 | + 8 |
| " " " " " | Oswaldkirk | — | — | — | — | — | — | — | — | — | — | — | 22·8 | − 9·5 | 23 | −10 |
| " " " " " | Colwyn Bay | — | — | — | — | — | — | — | — | — | — | — | 52·5 | ? | 54 | ? |
| " " " " " | Newquay | — | — | — | — | — | — | — | — | — | — | — | 52·8 | +11·1 | 54 | +11 |

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 22. | *Third Series.* WEEK ENDING SATURDAY, JUNE 3RD, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS (See p. 128.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 74 | 32 | 61·0 | 42·9 | 51·4 | 2 above | 66 | +16 | 0 | − 3 | 394 | − 6 | 617 | 0 |
| | 1. SCOTLAND, EAST | 74 | 29 | 66·0 | 42·9 | 53·8 | 2 above | 83 | +18 | 0 | − 2 | 464 | − 47 | 669 | + 21 |
| | 2. ENGLAND, N.E. | 76 | 32 | 67·2 | 44·9 | 55·4 | 4 above | 94 | +32 | 0 | − 1 | 587 | + 89 | 456 | − 92 |
| | 3. ENGLAND, EAST | 79 | 32 | 65·3 | 43·0 | 53·5 | 0 (average) | 81 | + 1 | 0 | − 2 | 746 | +101 | 421 | −195 |
| | 4. MIDLAND COUNTIES | 78 | 30 | 69·1 | 40·2 | 53·8 | 0 (average) | 90 | + 8 | 5 | + 4 | 747 | + 65 | 478 | −140 |
| | 5. ENGLAND SOUTH | 83 | 34 | 67·6 | 45·7 | 56·0 | 1 above | 98 | +10 | 0 | − 1 | 863* | +141 | 294 | −182 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 72 | 34 | 64·5 | 42·8 | 53·0 | 1 above | 77 | + 7 | 0 | − 1 | 530 | − 24 | 413 | − 48 |
| | 7. ENGLAND, N.W. | 77 | 31 | 65·0 | 44·8 | 54·3 | 1 above | 86 | +11 | 0 | − 1 | 660 | + 86 | 313 | −145 |
| | 8. ENGLAND, S.W. | 78 | 32 | 65·6 | 44·7 | 54·5 | 1 above | 88 | + 6 | 0 | 0 | 836 | +123 | 240 | −121 |
| | 9. IRELAND, NORTH | 76 | 33 | 64·3 | 46·3 | 54·8 | 2 above | 90 | +18 | 0 | − 1 | 652 | + 19 | 323 | − 71 |
| | 10. IRELAND, SOUTH | 73 | 36 | 65·1 | 45·2 | 54·6 | 1 above | 88 | + 9 | 0 | − 1 | 869 | + 98 | 245 | − 54 |
| | —CHANNEL ISLANDS | 78 | 41 | 64·2 | 49·4 | 56·4 | 1 above | 101 | +14 | 0 | 0 | 1137 | +304 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 128.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principa Wheat-producing Districts. | 0. SCOTLAND, NORTH | 3 | 4 | 2 less | 98 | − 3 | 21·1 | + 1·8 | 43 | + 5 | 35 | + 4 | 538 | + 50 | 29 | + 3 |
| | 1. SCOTLAND, EAST | 1 | 1 | 5 less | 93 | +12 | 15·0 | + 3·4 | 64 | +22 | 54 | +18 | 563 | + 32 | 31 | + 1 |
| | 2. ENGLAND, N.E. | 0 | — | 5 less | 85 | + 8 | 10·2 | + 0·9 | 66 | +37 | 56 | +29 | 535 | + 19 | 30 | + 1 |
| | 3. ENGLAND, EAST | 0 | — | 5 less | 77 | + 2 | 9·2 | + 0·2 | 94 | +44 | 83 | +38 | 730 | + 95 | 39 | + 5 |
| | 4. MIDLAND COUNTIES | 0 | — | 6 less | 77 | + 5 | 11·6 | + 1·4 | 88 | +47 | 76 | +42 | 623 | + 92 | 36 | + 5 |
| | 5. ENGLAND, SOUTH | 0 | — | 5 less | 67 | − 3 | 9·9 | − 0·7 | 95 | +44 | 85 | +38 | 740 | +110 | 41 | + 6 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 2 | 1 | 7 less | 96 | +10 | 22·2 | + 3·1 | 69 | +25 | 60 | +21 | 551 | + 2 | 31 | 0 |
| | 7. ENGLAND, N.W. | 0 | — | 6 less | 89 | +11 | 14·8 | + 2·9 | 82 | +38 | 71 | +33 | 623 | + 77 | 35 | + 5 |
| | 8. ENGLAND, S.W. | 0 | — | 6 less | 85 | + 6 | 18·8 | + 4·3 | 94 | +44 | 85 | +40 | 710* | + 42 | 39 | + 2 |
| | 9. IRELAND, NORTH | 1 | less than ½ | 6 less | 103 | +12 | 16·2 | + 2·4 | 66 | +24 | 58 | +21 | 605 | + 72 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 0 | — | 6 less | 87 | + 2 | 19·3 | + 3·9 | 76 | +31 | 67 | +27 | 682 | + 68 | 38 | + 4 |
| | — CHANNEL ISLANDS | 0 | — | 5 less | 81 | − 5 | 13·1 | + 0·6 | 97 | +37 | 88 | +33 | 801 | + 61 | 45 | + 3 |

*Bright Sunshine* —Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this week was extremely fine and bright over the greater part of the Kingdom, but slight rain was experienced towards its close in most parts of Scotland, accompanied by thunder at a few of the extreme northern stations.

*Temperature*, which was very low at the commencement of the period, subsequently rose quickly and became high, so that the average values for the week exceeded the mean in all districts except England E. and the Midland Counties. The highest of the maxima were registered, as a rule, either on Thursday or Friday; they ranged from 83° in England S. (in London), to 73° in Ireland S., and to 72° in Scotland W. The lowest of the minima occurred on May 28th, when the sheltered thermometer fell to 29° in Scotland E., 30° in the Midland Counties, 31° in England N.W., and to 32° over north-eastern, eastern and south-western England, and also in Scotland N. Elsewhere the lowest readings ranged from 33° in Ireland N. to 41° in the Channel Islands. The extreme range of temperature during the week was thus unusually large, amounting to 48° at Loughborough, and to more than 40° at nearly all the other inland English stations, as well as at Fort Augustus.

*Rainfall.*—Slight rain occurred in Scotland and the extreme north of Ireland during the latter part of the period, but, with this exception, the week was quite rainless.

*Bright Sunshine* was extremely abundant, especially over England. The percentage of the possible duration ranged from 88 in the Channel Islands, 85 in England S. and S.W., and 83 in England E., to 67 in Ireland S., 54 in Scotland E., and to 35 in Scotland N. The highest percentages recorded at individual stations were 90 at Watergate (Emsworth), 89 at Jersey, and 88 at several southern and south-western coast stations.

*Barometer and Wind.*—During the earlier half of the period an anticyclone passed slowly eastwards over the Kingdom, the wind being light from the South-Westward or Westward in the north, but mainly from between North-East and South-East in the south and south-east. By Thursday this system had moved on to the Continent, and on the following day a shallow depression moved north-eastwards over our north-western coasts, causing Southerly winds for a time in most districts. At the end of the week the disturbance was disappearing over Norway, while another anticyclone was spreading over Ireland and England from the Atlantic.

207 | 90 Wy. & S., Ltd.
913 | 70 6 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 127 has been calculated.

| Districts | Names of Stations | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 54 | 42 | 52·3 | 44·1 | 48·0 | + 0·8 | 42 | 0 | 5 | 0·43 | - 0·03 | * | * | * | * |
| | Stornoway | 67 | 39 | 59·6 | 44·6 | 51·7 | + 2·3 | 68 | 0 | 4 | 0·38 | - 0·25 | 37·7 | - 4·2 | 31 | - 4 |
| | Wick | 66 | 32 | 62·4 | 42·7 | 52·0 | + 2·6 | 70 | 0 | 2 | 0·02 | - 0·36 | * | * | * | * |
| | Lairg Ⓢ | 70 | 32 | 64·1 | 40·5 | 51·6 | + 2·0 | 74 | 4 | 4 | 0·27 | - 0·24 | * | * | * | * |
| | Glencarron Ⓢ | 72 | 34 | 60·8 | 42·2 | 50·9 | + 0·4 | 62 | 0 | 4 | 1·16 | - 0·04 | * | * | * | * |
| | Fort Augustus Ⓢ | 74 | 33 | 65·6 | 42·2 | 53·2 | + 1·9 | 78 | 0 | 3 | 0·12 | - 0·29 | 37·3 | + 8·8 | 31 | + 7 |
| | Fort William Ⓢ | 70 | 36 | 62·2 | 44·1 | 52·6 | + 0·3 | 74 | 0 | 2 | 0·41 | - 0·40 | 46·6 | + 7·1 | 39 | + 6 |
| 1. SCOTLAND E. | Nairn | 68 | 32 | 65·0 | 41·6 | 52·6 | + 0·9 | 76 | 1 | 2 | 0·15 | - 0·28 | * | * | * | * |
| | Aberdeen | 70 | 35 | 65·1 | 43·9 | 53·9 | + 2·6 | 83 | 0 | 1 | 0·01 | - 0·47 | 67·4 | +22·4 | 56 | +18 |
| | Braemar Ⓢ | 68 | 29 | 62·7 | 38·8 | 50·0 | + 0·7 | 69 | 9 | 1 | 0·05 | - 0·43 | 59·8† | +17·8† | 50† | +13† |
| | Ochtertyre Ⓢ | 74 | 38 | 68·0 | 44·9 | 55·8 | + 3·0 | 97 | 0 | 1 | 0·11 | - 0·53 | * | * | * | * |
| | Leith | 73 | 40 | 68·0 | 45·1 | 55·9 | + 2·8 | 97 | 0 | 0 | — | - 0·47 | * | * | * | * |
| | Marchmont Ⓢ | 73 | 36 | 67·0 | 43·1 | 54·3 | + 3·2 | 86 | 0 | 0 | — | - 0·60 | 73·3 | +30·5 | 62 | +25 |
| 2. ENGLAND, N.E. | Alnwick Castle | 76 | 35 | 71·4 | 43·8 | 56·8 | + 6·0 | 104 | 0 | 0 | — | - 0·54 | * | * | * | * |
| | Durham | 75 | 32 | 69·6 | 41·4 | 54·7 | + 2·2 | 91 | 2 | 0 | — | - 0·52 | 77·6 | +37·5 | 66 | +31 |
| | Shields | 73 | 38 | 66·1 | 46·1 | 55·5 | + 1·4 | 95 | 0 | 0 | — | - 0·42 | * | * | * | * |
| | Scarborough Ⓜ | 75 | 35 | 66·5 | 46·0 | 55·6 | + 3·4 | 95 | 0 | 0 | — | - 0·50 | | | | |
| | York | | | | | | | | | | | | | | | |
| | Spurn Head | 75 | 40 | 62·6 | 47·1 | 54·4 | + 2·1 | 87 | 0 | 0 | — | - 0·42 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 79 | 32 | 70·1 | 40·8 | 54·6 | + 0·7 | 93 | 3 | 0 | — | - 0·52 | 90·7 | +42·5 | 80 | +37 |
| | Yarmouth | 73 | 42 | 59·9 | 47·1 | 53·1 | - 0·1 | 78 | 0 | 0 | — | - 0·47 | * | * | * | * |
| | Geldeston | 79 | 36 | 66·7 | 41·6 | 53·4 | - 0·2 | 81 | 1 | 0 | — | - 0·45 | 96·5 | +45·0 | 85 | +38 |
| | Cambridge | | | | | | | | | | | | | | | |
| | Felixstowe | 69 | 38 | 61·7 | 45·3 | 52·0 | - 0·5 | 77 | 0 | 0 | — | ? | 97·4 | ? | 86 | ? |
| | Rothamsted | 78 | 35 | 68·3 | 40·4 | 53·5 | - 0·8 | 87 | 4 | 0 | — | - 0·48 | 87·3 | +41·8 | 77 | +36 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 77 | 31 | 71·7 | 38·6 | 54·2 | - 0·3 | 100 | 10 | 0 | — | - 0·53 | * | * | * | * |
| | Loughborough | 78 | 30 | 70·9 | 39·6 | 54·3 | - 1·2 | 96 | 7 | 0 | — | - 0·52 | * | * | * | * |
| | Stamford (Duddington) | 75 | 32 | 70·0 | 38·7 | 53·4 | - 1·1 | 94 | 9 | 0 | — | - 0·53 | * | * | * | * |
| | Cheadle Ⓜ | 72 | 34 | 66·0 | 43·1 | 53·9 | + 1·4 | 83 | 0 | 0 | — | - 0·62 | * | * | * | * |
| | Shirley (near Solihull) | 74 | 32 | 68·0 | 39·9 | 53·1 | - 1·4 | 87 | 6 | 0 | — | ? | * | * | * | * |
| | Churchstoke Ⓜ | 75 | 34 | 68·6 | 38·6 | 52·7 | + 0·2 | 89 | 10 | 0 | — | - 0·57 | 93·4 | +49·5 | 82 | +43 |
| | Hereford (Belmont) Ⓜ | 75 | 34 | 69·2 | 40·7 | 54·1 | - 0·7 | 90 | 4 | 0 | — | - 0·54 | * | * | * | * |
| | Cirencester | 74 | 34 | 68·0 | 39·9 | 53·1 | - 0·2 | 87 | 6 | 0 | — | - 0·55 | 97·2 | +51·1 | 86 | +46 |
| | Oxford | 76 | 34 | 69·9 | 42·7 | 55·5 | + 1·0 | 95 | 0 | 0 | — | - 0·53 | 94·9 | +49·7 | 84 | +43 |
| 5. ENGLAND, S. | London | 83 | 39 | 73·6 | 46·3 | 59·1 | + 2·8 | 120 | 0 | 0 | — | - 0·48 | 83·1† | +41·0† | 74† | +36† |
| | Cranley Ⓜ | 77 | 34 | 68·6 | 42·0 | 54·5 | - 1·0 | 88 | 0 | 0 | — | ? | * | * | * | * |
| | Dungeness | 67 | 35 | 62·4 | 45·4 | 53·4 | - 1·1 | 80 | 0 | 0 | — | - 0·46 | * | * | * | * |
| | Hastings (St. Leonards) | 73 | 39 | 65·2 | 47·7 | 55·9 | + 1·7 | 97 | 0 | 0 | — | - 0·45 | 96·9 | +42·1 | 87 | +37 |
| | Southampton | 80 | 38 | 70·9 | 44·6 | 57·0 | + 1·4 | 105 | 0 | 0 | — | - 0·45 | 94·7 | +44·7 | 85 | +39 |
| | Hurst Castle | 73 | 38 | 66·6 | 47·1 | 56·3 | + 1·4 | 100 | 0 | 0 | — | - 0·45 | * | * | * | * |
| | Shaftesbury Ⓜ | 74 | 38 | 66·0 | 46·6 | 55·7 | + 2·4 | 96 | 0 | 0 | — | - 0·41 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 72 | 38 | 63·1 | 45·0 | 53·5 | + 1·2 | 81 | 0 | 3 | 0·25 | - 0·66 | * | * | * | * |
| | Glasgow | 72 | 38 | 65·0 | 45·6 | 54·7 | + 2·6 | 89 | 0 | 2 | 0·10 | - 0·60 | 51·2 | +13·7 | 43 | +11 |
| | Glenlee Ⓢ | 71 | 34 | 65·1 | 39·0 | 51·3 | - 0·7 | 78 | 8 | 1 | 0·01 | - 0·81 | * | * | * | * |
| | Douglas (Isle of Man) | 68 | 40 | 64·7 | 41·5 | 52·4 | + 0·1 | 75 | 1 | 0 | — | - 0·88 | 86·9 | +35·9 | 76 | +31 |
| 7. ENGLAND, N.W. | Stonyhurst | 72 | 31 | 65·0 | 42·6 | 53·2 | - 0·1 | 78 | 0 | 0 | — | - 0·79 | 81·7 | +37·0 | 71 | +32 |
| | Blackpool Ⓜ | 76 | 36 | 65·3 | 43·0 | 53·5 | + 0·6 | 81 | 0 | 0 | — | - 0·52 | 76·7 | +31·8 | 67 | +28 |
| | Manchester (Prestwich) | 73 | 34 | 66·6 | 41·4 | 53·2 | - 0·2 | 81 | 2 | 0 | — | - 0·69 | 67·9 | ? | 59 | ? |
| | Liverpool Obsy. (Bidston) | 75 | 42 | 64·3 | 48·0 | 55·7 | + 2·2 | 96 | 0 | 0 | — | - 0·52 | 81·0 | ? | 71 | ? |
| | Llandudno Ⓜ | 77 | 41 | 65·6 | 45·6 | 55·0 | + 0·8 | 91 | 0 | 0 | — | - 0·48 | 90·2 | +45·8 | 79 | +40 |
| | Holyhead | 72 | 44 | 63·0 | 47·9 | 55·0 | + 1·4 | 91 | 0 | 0 | — | - 0·48 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 78 | 32 | 71·9 | 39·0 | 54·5 | + 0·4 | 100 | 8 | 0 | — | - 0·71 | * | * | * | * |
| | Pembroke | 66 | 44 | 62·0 | 47·1 | 54·1 | + 0·9 | 85 | 0 | 0 | — | - 0·50 | 96·9 | +45·9 | 86 | +41 |
| | Clifton | 76 | 40 | 69·7 | 47·3 | 57·8 | + 3·8 | 111 | 0 | 0 | — | - 0·58 | * | * | * | * |
| | Arlington (N. Devon) | 72 | 38 | 65·9 | 43·0 | 53·8 | + 1·3 | 83 | 0 | 0 | — | - 0·76 | * | * | * | * |
| | Cullompton Ⓜ | 75 | 36 | 69·0 | 40·3 | 53·8 | - 0·7 | 90 | 5 | 0 | — | - 0·43 | 92·7 | +46·2 | 83 | +41 |
| | Falmouth | 65 | 44 | 60·9 | 47·8 | 54·0 | - 0·5 | 84 | 0 | 0 | — | - 0·51 | 95·2 | +42·3 | 86 | +38 |
| | Plymouth | 72 | 42 | 63·1 | 46·0 | 54·0 | - 2·1 | 84 | 0 | 0 | — | - 0·48 | 93·9 | +45·0 | 85 | +40 |
| | Prawle Point | 70 | 43 | 62·3 | 47·7 | 54·7 | + 1·1 | 89 | 0 | 0 | — | - 0·42 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 71 | 46 | 60·1 | 49·0 | 54·2 | + 2·0 | 85 | 0 | 2 | 0·04 | ? | * | * | * | * |
| | Londonderry | 76 | 40 | 69·8 | 46·6 | 57·5 | + 3·4 | 109 | 0 | 2 | 0·06 | - 0·56 | * | * | * | * |
| | Edenfel (Omagh) | 72 | 35 | 65·0 | 42·7 | 53·2 | + 2·2 | 78 | 0 | 1 | 0·02 | - 0·59 | * | * | * | * |
| | Belmullet | 72 | 42 | 60·9 | 48·6 | 54·4 | + 1·0 | 87 | 0 | 3 | 0·12 | 0·61 | * | * | * | * |
| | Markree Castle | 72 | 33 | 64·7 | 41·8 | 52·6 | - 0·1 | 75 | 1 | 1 | 0·03 | - 0·64 | 66·5 | +24·7 | 58 | +22 |
| | Armagh | 70 | 37 | 65·9 | 45·2 | 54·9 | + 2·3 | 90 | 0 | 0 | — | - 0·48 | 66·0 | +24·5 | 57 | +21 |
| | Donaghadee | 68 | 39 | 63·9 | 50·3 | 56·7 | + 3·8 | 103 | 0 | 0 | — | - 0·57 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 72 | 42 | 67·8 | 48·3 | 57·5 | + 2·9 | 109 | 0 | 0 | — | - 0·50 | 84·7 | +37·3 | 74 | +32 |
| | Parsonstown | 73 | 37 | 67·0 | 43·9 | 54·8 | + 1·5 | 90 | 0 | 0 | — | - 0·60 | 75·9 | +35·1 | 67 | +32 |
| | Kilkenny | 69 | 36 | 66·0 | 41·6 | 53·1 | - 0·5 | 79 | 1 | 0 | — | - 0·50 | * | * | * | * |
| | Roche's Point | 63 | 43 | 60·9 | 49·1 | 54·7 | - 0·2 | 89 | 0 | 0 | — | - 0·72 | * | * | * | * |
| | Valencia | 68 | 40 | 62·4 | 47·9 | 54·7 | + 0·1 | 89 | 0 | 0 | — | - 0·63 | 68·3 | +20·5 | 60 | +17 |
| | Killarney | 71 | 38 | 65·7 | 43·3 | 53·8 | - 0·2 | 83 | 0 | 1 | 0·06 | ? | * | * | * | * |
| | Foynes | 70 | 39 | 66·0 | 42·2 | 53·4 | - 0·2 | 89 | 0 | 1 | 0·10 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 65 | 41 | 60·7 | 49·1 | 54·6 | 0·0 | 88 | 0 | 0 | — | - 0·45 | 97·5 | ? | 88 | ? |
| | Jersey | 78 | 45 | 67·7 | 49·7 | 58·2 | + 2·6 | 113 | 0 | 0 | — | - 0·48 | 97·7 | + 40·1 | 89 | +36 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

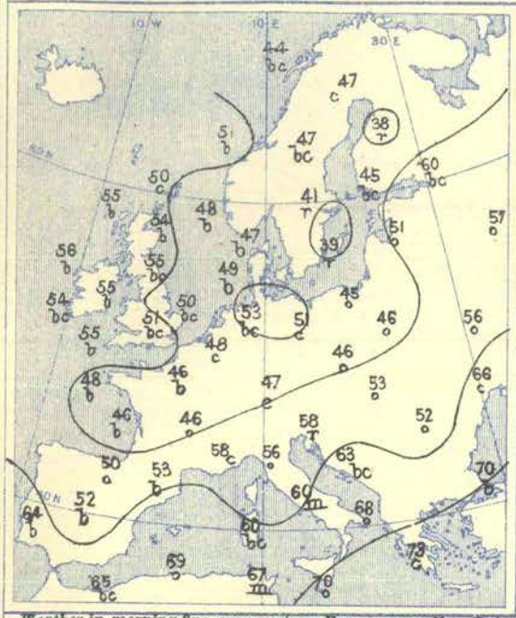
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

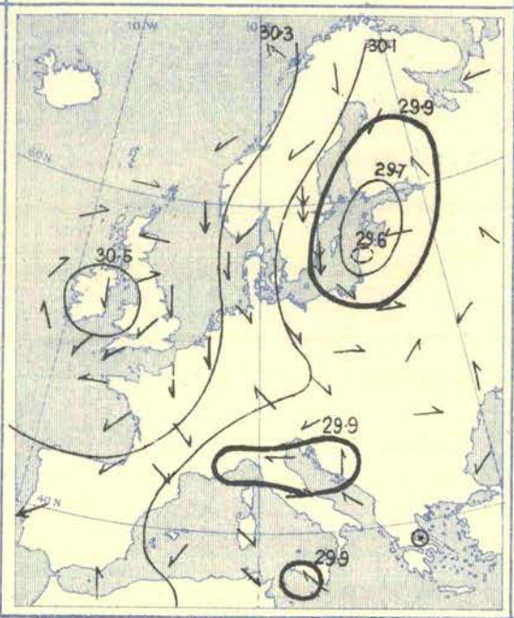
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 28th May.

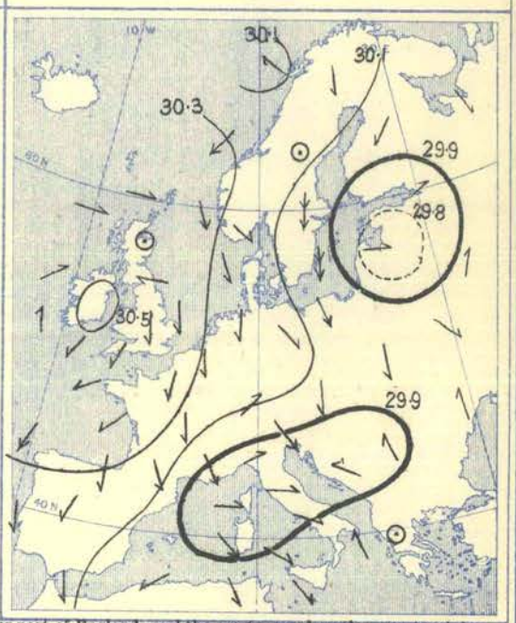
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over western Europe generally. Rainy in Finland and the south of Sweden; dull over nearly the whole of Russia, Austria, and Italy, with rain at Trieste. Rain falling later in many parts of Austria, northern Italy, the extreme south of France, and the north-east of Spain—heavily at Pesaro.

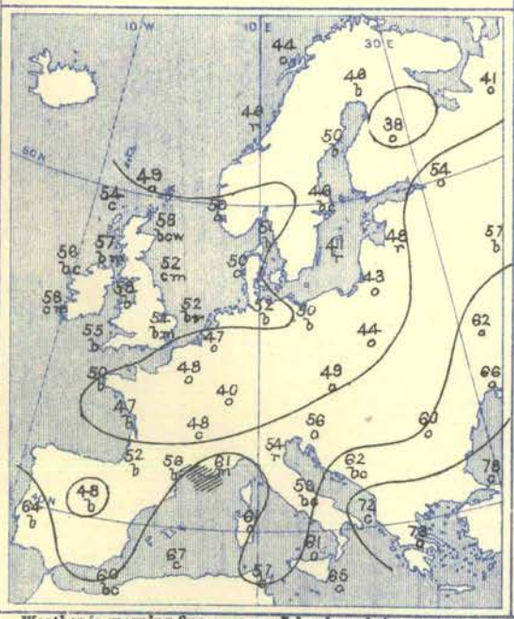
*Temperature* risen in our Islands and the neighbouring parts of the Continent, changed very irregularly elsewhere. Morning readings highest, 73° at Athens, 72° at Patras, and 70° at Malta and Constantinople; above 65° at many of the Mediterranean stations, and above 60° in some parts of northern Russia. Lowest, 38° at Kuopio, 39° at Wisby, and 41° at Stockholm, below 50° over eastern and central England. Rising during day to 60° and upwards in many parts of the United Kingdom, and to 65° at Parsonstown, exceeding 65° in the south of France, exceeding 70° in Italy, and reaching 81° at Malta. Ground frost occurring over central England at night.

*Wind* Northerly over the greater part of England, and the western and northern parts of the Continent; light or moderate in force generally but blowing a gale in the south of Sweden. Light from the Southward in the west of Ireland, and from the Westward in the north of Scotland. Moderate from the North-Eastward over the Bay of Biscay and the Spanish Peninsula; variable in Italy, Austria, and the south of Russia. No important change occurring over western Europe during day.

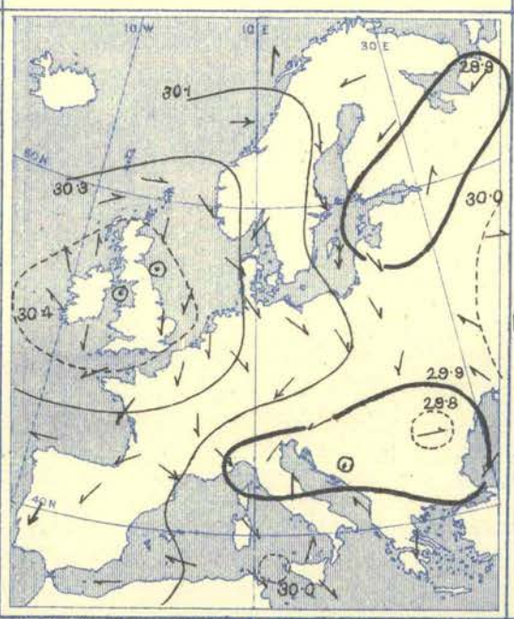
*Barometer* highest, 30·5 ins. and upwards over Ireland, Wales and the west of England; 30·2 ins. and upwards in an anticyclone covering the whole of western Europe. Lowest, 29·6 ins. and less in a well-marked depression with its centre over the Baltic provinces; 29·9 ins. and less in a shallow disturbance lying over the Gulf of Genoa, and the northern parts of Italy, and the Adriatic. No important change occurring later over the western countries, depression over Baltic provinces moving eastwards, and partially filling up; shallow system over northern Italy, spreading eastwards over Austria.

## Monday, 29th May.

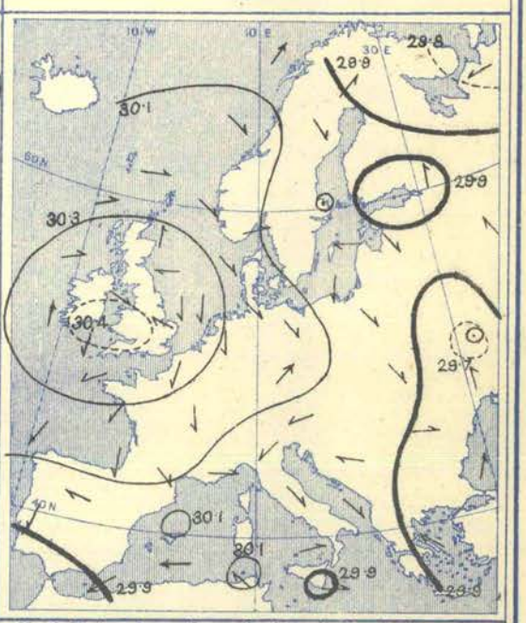
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over our Islands and the western parts of the Continent generally, but dull in the west of Norway, with rain at Christiansünd; dull over Russia, eastern Germany, Austria and Italy, with rain in several places. No important change occurring during day, but solar halo seen at Valencia (Ireland) in afternoon.

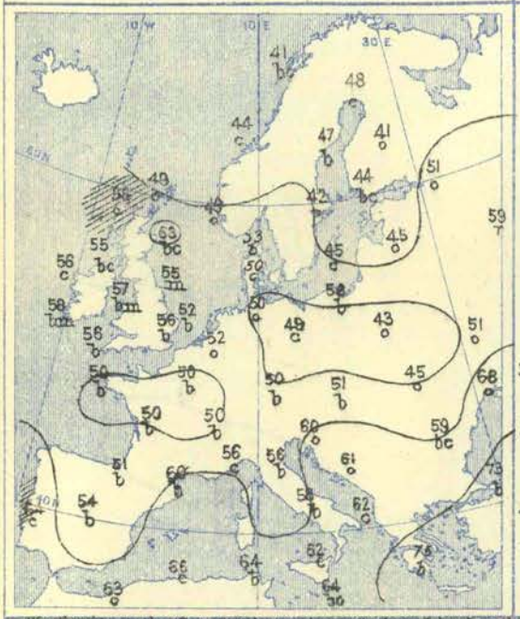
*Temperature* risen in most of the western countries, but fallen elsewhere. Morning readings highest 78° at Constantinople, 73° at Patras, and 72° at Brindisi; above 60° at most of the Mediterranean stations, and also in the south of Russia, and above 55° in the west and north of our Islands. Lowest 38° at Kuopio, and 41° at Archangel, Hangö and Wisby. Rising during day to 65° and upwards in several parts of the United Kingdom and France, and reaching 71° at Leith; exceeding 70° also in many parts of southern Europe, and reaching 81° at Lisbon and Oporto. Slight ground frost in London at night.

*Wind* light to moderate from the North-Eastward over the south of England and the greater part of France and Spain, but Northerly or North-Westerly in the south of France. Light from the South-Eastward in Ireland, but from the Westward in Scotland. Northerly or North-Westerly over Denmark, Germany, Austria and the south of Scandinavia, with a gale at Wisby; variable in Italy and Greece. No important change occurring over western Europe during day, but gale at Wisby subsiding.

*Barometer* highest 30·4 ins. and upwards over our Islands and the north-west of France, 30·2 ins. and upwards in an anticyclone covering the whole of western Europe. Lowest 29·9 ins. and less in two large and complex depressions lying respectively over northern Russia and over Austria, northern Italy and the Gulf of Genoa. Gradual fall of barometer taking place over western Europe during day and anticyclone beginning to break up.

## Tuesday, 30th May.

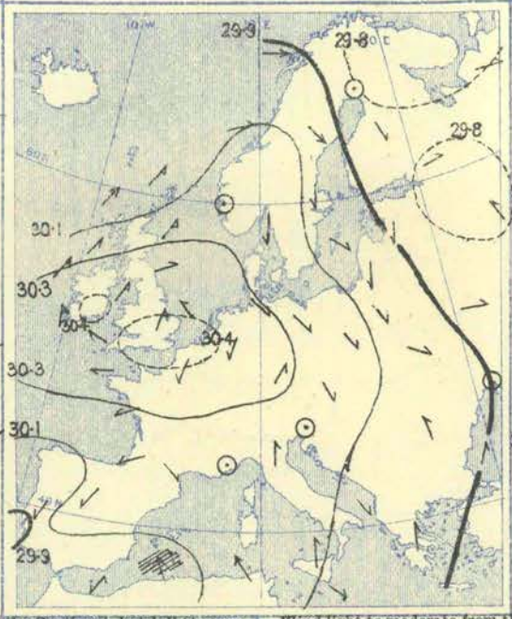
### Temperature and Weather. 8 a.m.



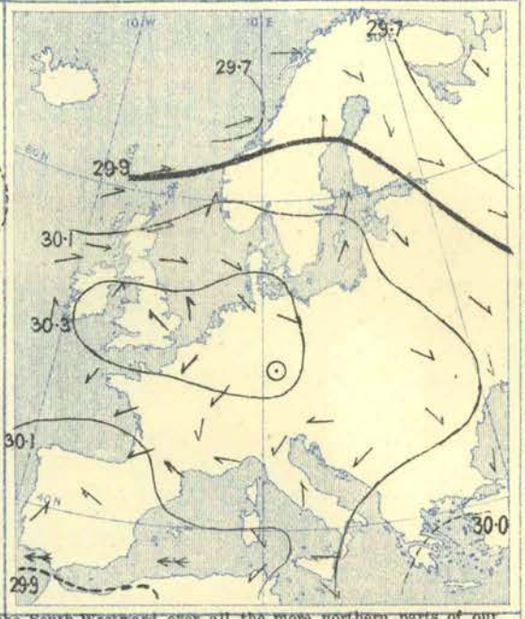
*Weather* in morning fine over the greater part of our Islands and the Continent, but dull at some of the Irish and Scotch stations. Dull also in Russia and Greece, with rain at Moscow. Rain falling later in the Shetlands and Hebrides, and also in the west of Norway and some parts of northern and central Russia; heavily at Christiansünd and Archangel. Solar halos seen at Oxford during day.

*Temperature* risen generally but fallen in many parts of Scandinavia, as well as at some of the Italian stations. Morning readings highest 75° at Athens, 73° at Constantinople, and 70° at Patras, above 65° at many of the Mediterranean and Spanish coast stations, and also in the south of Russia; above 60° in the east of Scotland. Lowest 41° at Bodö and Kuopio, 44° at Christiansünd, and 45° at Archangel and Wisby. Rising during day to between 65° and 70° in many parts of our Islands, and to 72° in London; exceeding 70° also in many parts of France and southern Europe and to 81° at Cette.

### Barometer and Wind. 8 a.m.



### 6 p.m.

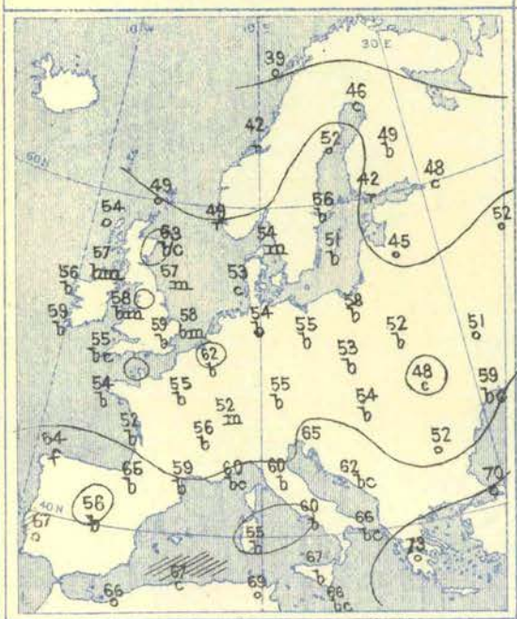


*Wind* light to moderate from the South-Westward over all the more northern parts of our Islands, but Easterly or North-Easterly over the Channel and greater part of France, Spain and northern Italy. Westerly in the west of Norway; North-Westerly or Northerly over Sweden, Denmark, Germany, Austria and western Russia, variable over Greece and southern Italy. Backing later to the South-Westward or Southward in Sweden; no important change occurring elsewhere.

*Barometer* highest 30·4 ins and upwards over the Netherlands and the south of England, 20·3 ins. and upwards in an anticyclone covering the whole of Ireland, England, the Netherlands, western Germany and the north of France. Lowest 29·3 ins. and less in two large shallow depressions lying over northern and central Russia; 29·9 ins. and less in another shallow system off the south-west of Spain. New depression appearing later off the Norwegian coasts; barometer falling rather briskly in the extreme north of our Islands.

## Wednesday, 31st May.

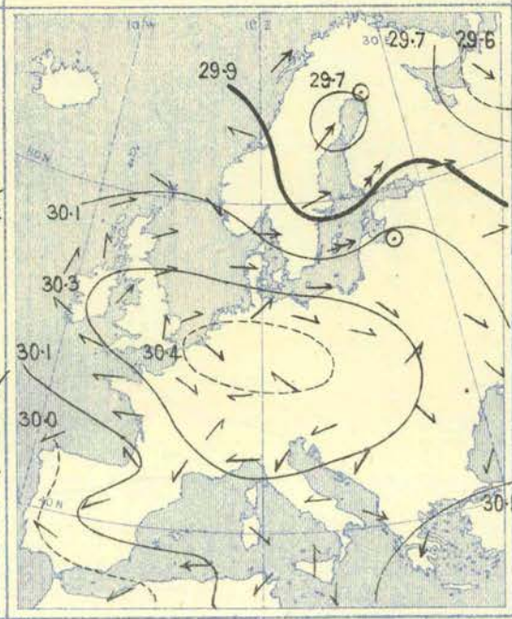
### Temperature and Weather. 8 a.m.



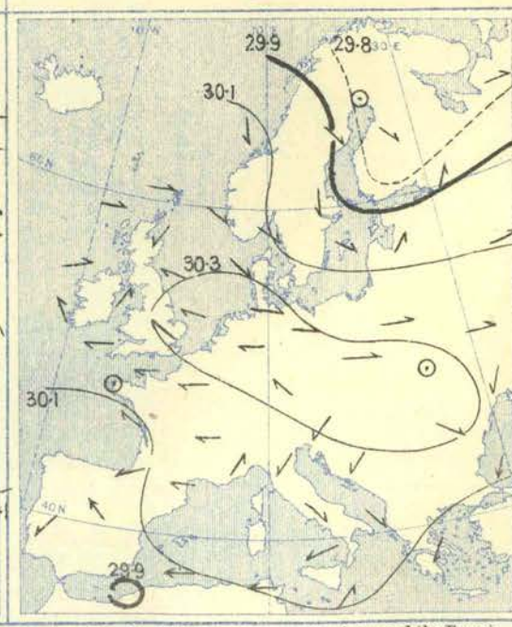
*Weather* in morning fine over western, central, and southern Europe generally, but dull in the north of Scotland. Cloudy or dull in most parts of Scandinavia, Russia, and Austria, with rain in the west of Norway, as well as at Hangö and Trieste. No important change occurring during day, but slight rain falling in the Shetlands. Thunderstorms reported at Nemours and Oran.

*Temperature* risen generally, but fallen at many of the Russian stations. Morning readings highest, 73° at Patras, 71° at Athens, 70° at Constantinople, and 69° at La Calle; above 60° over southern Europe generally, and also in the east of Scotland. Lowest, 36° at Archangel, 39° at Bodö, and 42° at Christiansund and Hangö. Rising during day to 70° and upwards in many parts of Great Britain, and to 75° in London and at Loughborough; exceeding 75° in several parts of France and southern Europe, and reaching 81° at Chassiron and Oporto.

### Barometer and Wind. 8 a.m.



### 6 p.m.



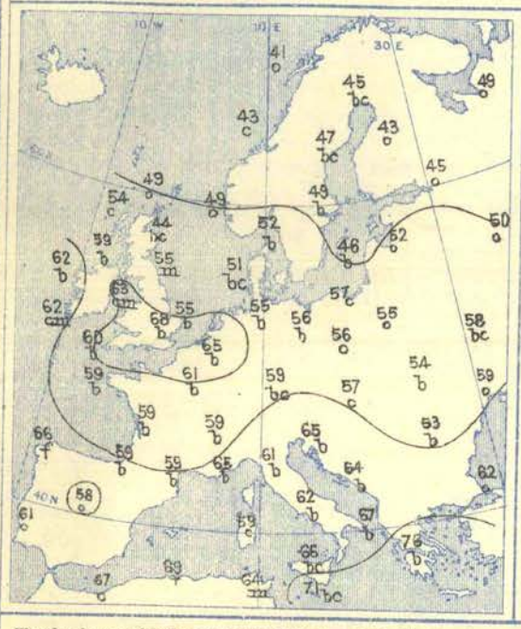
*Wind* light to moderate from the Eastward or South-Eastward on our southern and the French coasts, and also over Spain and Algeria. Light from the Westward or South-Westward on the north and east coasts of Great Britain; moderate to strong from the same quarters over the northern parts of the Continent, with a gale at Wisby; North-Westerly over eastern Germany and the south of Russia; variable in Austria and Italy. No important change occurring over western Europe during day, but wind veering to the North-Westward in Sweden and Denmark.

*Barometer* highest, 30·4 ins. and upwards over Belgium and Germany; 30·1 ins. and upwards in an anticyclone embracing all but the northern, and extreme south-western parts of Europe. Lowest, 29·7 ins. and less in a well-marked depression lying over the Gulf of Bothnia and the neighbouring parts of Sweden: Western portion of anticyclone beginning to break up later; Swedish depression moving Eastwards across northern Russia.

## Thursday, 1st June.

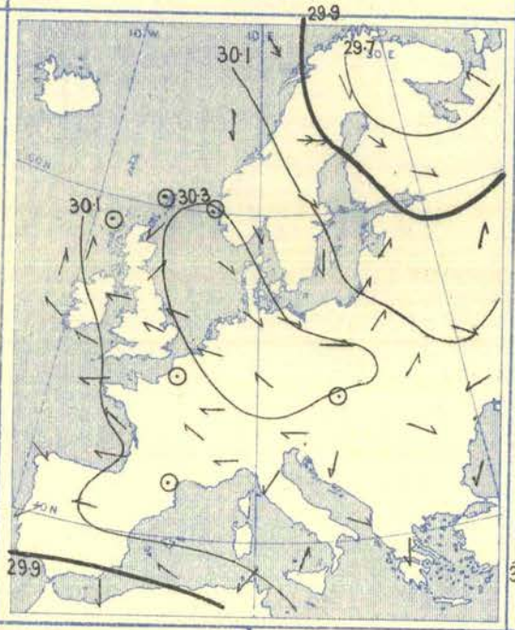
### Temperature and Weather.

8 a.m.

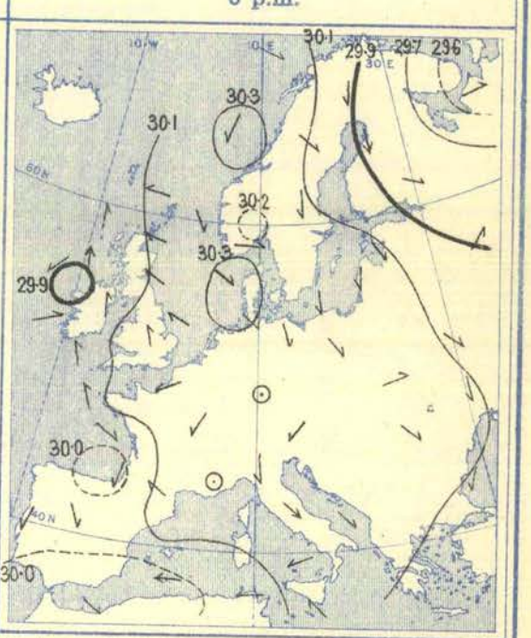


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over our Islands and the Continent generally, but dull in many parts of the Spanish Peninsula, and also in the Shetlands, the west of Norway, and in Russia. A little rain falling at night in the northern parts of Ireland and Scotland; thunder and lightning occurring at Belmullet, and also at Algiers and La Calle.

*Temperature* risen over France, the Netherlands, and the central and southern parts of our Islands, fallen in most other localities. Morning readings highest, (1) 76° at Patras, 71° at Malta, and 70° at Athens; (2) 68° in London and 67° at Jersey; above 60° in most parts of England and Wales. Lowest, 41° at Bodö and Uleaborg, 43° at Kuopio and Christiansund, and 44° at Helsingfors. Rising during day to between 70° and 75° in many parts of England and Ireland, to 78° at Loughborough, and to 80° in London. Exceeding 75° also over Belgium, France and many parts of southern Europe, and reaching 82° at Bordeaux.

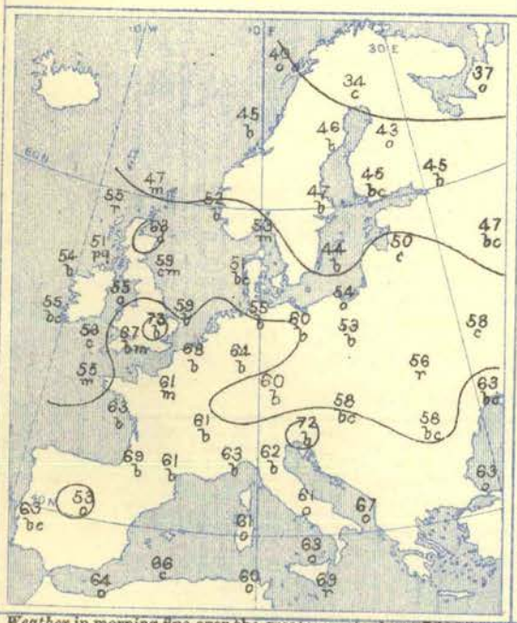
*Wind* light to moderate from the Eastward or South-Eastward over Ireland, England, France, Spain, the Netherlands, western Germany, and northern Italy. Calms or variable in Scotland; light to moderate from the North-Westward or Northward over the greater part of Scandinavia, Finland, Denmark, and north Germany, but blowing a gale from West at Hernösand. Calm in Austria; variable over the southern parts of Russia and Italy. Cyclonic circulation appearing later over Ireland; light South-Easterly breezes springing up in Scotland.

*Barometer* highest, 30·3 ins. and upwards in an anticyclone with its central area covering Germany, the Netherlands, and the greater part of the North Sea. Lowest, 29·7 ins. and less in a large shallow depression over northern Russia; 29·9 ins. and less in another disturbance over Morocco. Small depression appearing later over the west of Ireland, and moving in a North-North-Easterly direction during night.

## Friday, 2nd June.

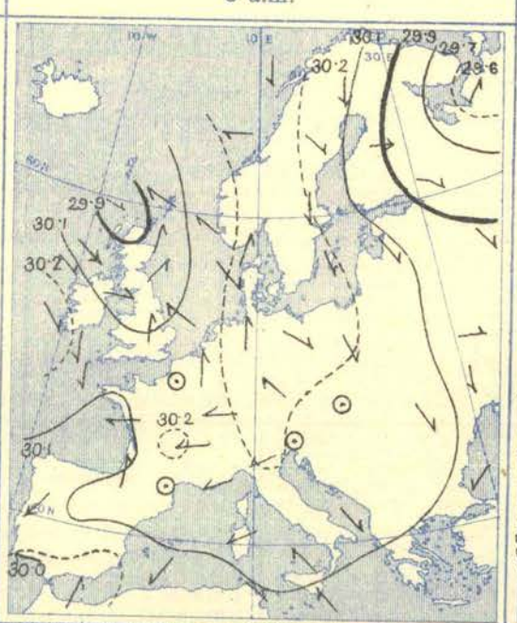
### Temperature and Weather.

8 a.m.

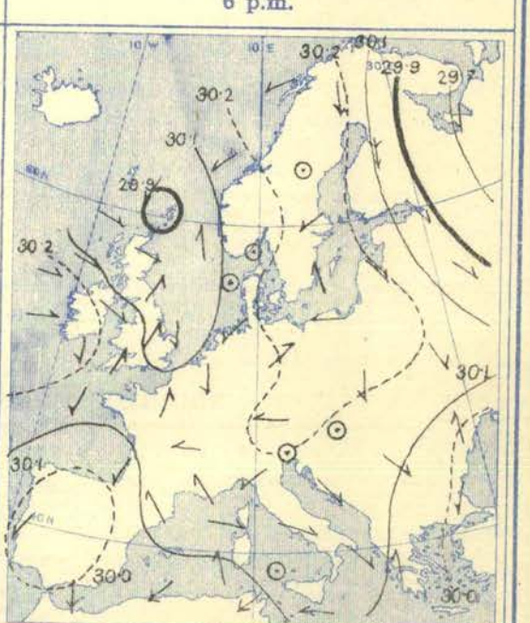


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over the greater part of our Islands and the Continent, but dull on our own extreme north and north-west coasts, with rain at Stornoway, and passing showers at Malin Head. Dull also over the northern parts of Russia and Scandinavia, and in many parts of Austria and southern Italy, with rain at Lemberg. A little rain falling later in the extreme north and north-west of our Islands generally, and distant thunder heard at Wick. Thunderstorms occurring at several of the Algerian stations.

*Temperature* fallen in the western and extreme northern parts of our Islands, and also over Sweden and northern Russia; risen in most other localities. Morning readings highest, (1) 73° in London, 69° at Jersey, and 68° at Brussels; (2) 72° at Alicente, Trieste, and Sfax, and 71° at Palma. Lowest, 34° at Haparanda, 36° at Uleaborg, 37° at Archangel, and 40° at Bodö. Rising during day to 70° and upwards in many parts of England, and to 83° in London; exceeding 80° also in many parts of France, and reaching 87° at Charleville.

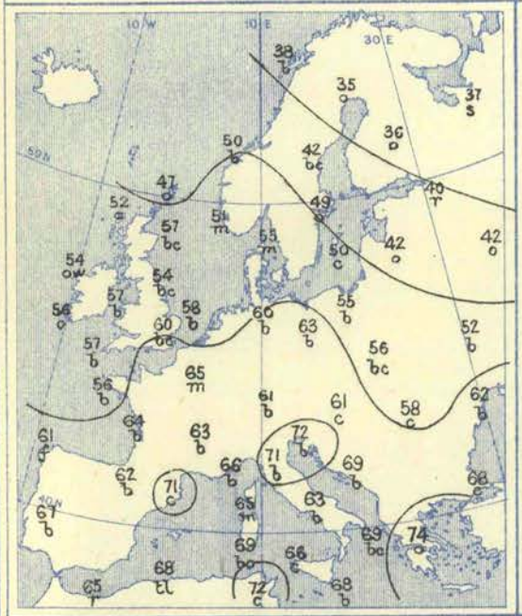
*Wind* moderate to fresh from the North-Westward or Northward over Ireland and the south-west of England; light from the Southward (South-East to South-West) over the eastern and central parts of Great Britain, and also over the Netherlands and the eastern shores of the North Sea. Northerly or North-Westerly over Sweden and Finland; calm or variable over Austria and the south of Russia. Northerly (North-West to North-East) over Italy; Easterly or North-Easterly over the Spanish Peninsula. Subsequently veering to the North-Westward in Scotland, but backing to the Westward in the west of Ireland.

*Barometer* highest, 30·2 ins. and upwards in an anticyclone lying over Scandinavia, Denmark, Germany, and Switzerland, and also in another system lying over the south-west of Ireland. Lowest, 29·6 ins. and less in a depression over northern Russia; 29·9 ins. and less in another disturbance with its centre off the north of Scotland. Depression off the north of Scotland subsequently moving slowly north-eastwards; shallow secondary disturbance forming over England, but moving eastwards later.

## Saturday, 3rd June.

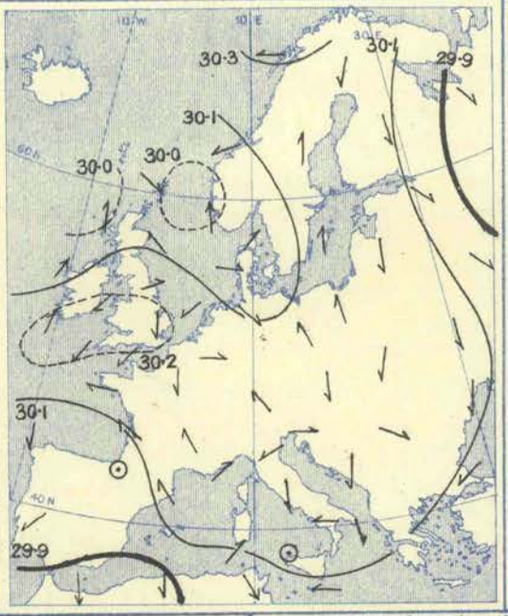
### Temperature and Weather.

8 a.m.

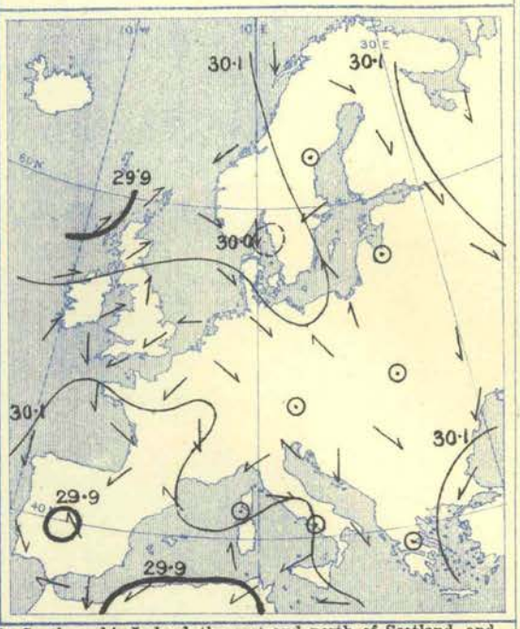


### Barometer and Wind.

8 a.m.




6 p.m.




*Weather* in morning fine over the greater part of Europe, but dull on our own extreme western and northern coasts. Dull also in many parts of Sweden and northern Russia, with rain at St. Petersburg, and snow at Archangel. Rain falling also in Algeria, with a thunderstorm at Algiers. A little rain falling later in the extreme north and north-west of our Islands, as well as at Faerder and Wisby, and a larger quantity at San Fernando and Nemours; no material change occurring elsewhere.

*Temperature* risen in most parts of Great Britain; changed irregularly elsewhere. Morning readings highest, 74° at Patras, and 72° at Oporto, Trieste, Athens, and Sfax; above 65° in most parts of southern Europe, and also in the Channel Islands. Lowest, 35° at Uleaborg, 36° at Haparanda and Kuopio, and 37° at Archangel; lowest in our Islands, 47° at Sumburgh Head. Rising during day to 70° and upwards over the central and southern parts of England, to 76° in London, and to 78° at Jersey. Exceeding 75° also in Germany, exceeding 80° in many parts of France and southern Europe, and reaching 88° at Palermo.

*Wind* light to moderate from the Southward in Ireland, the west and north of Scotland, and the south of Scandinavia, but Easterly in the west of Norway. Light from the Northward or North-Eastward in the south of England and the north of France. Calm or variable over the Spanish Peninsula and the south of France; Northerly in Italy, Austria, and the south of Russia. No important change occurring during day, but wind veering to the North-Westward in Denmark and the south of Norway.

*Barometer* highest, 30·2 ins. and upwards over the central and southern parts of our Islands, and also over Sweden, Finland, the Baltic, eastern and southern Germany, Austria, Switzerland, and northern Italy. Lowest, 29·9 ins. and less in a large shallow depression over the northern and central parts of Russia, and also in another disturbance over Morocco; 30·0 ins. and less in two other systems—one lying off our own extreme north-west coasts, and the other between the Shetlands and the west of Norway. Depression off our north-west coasts subsequently moving northwards; Norwegian disturbance passing south-eastwards to the south of Sweden.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇉ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the commencement of the week a large anticyclone still covered our Islands and the western parts of the Continent, the weather in those regions being fine and dry with a steadily rising temperature. Over northern Europe the conditions were influenced for a time by a depression with its centre over the Baltic Provinces, the disturbance occasioning rain over Sweden and northern Russia, with a gale from the Northward in the former region. In the south the weather was affected by a complex disturbance lying over Austria and Italy, where heavy falls of rain occurred in places. On the 29th and 30th these depressions both moved away to the eastward and dispersed.

The anticyclone in the west now began to break up and moved, firstly in a southerly direction, and afterwards in an easterly direction to the more central parts of the Continent, while a series of depressions skirted our own extreme north-western and northern coasts and passed on to Scandinavia. These disturbances occasioned a little rain in the districts more immediately affected, but over our Islands and the Continent as a whole the weather remained fine and dry, with very high temperatures over England. At the close of the week a new anticyclone spread over Ireland and England from the westward.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 128.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 45·4 | ? | 37 | ? | WATERGATE (Emsworth) | 100·7 | ? | 90 | ? |
| STRATHPEFFER SPA | 47·2 | + 7·4 | 39 | + 6 | BRIGHTON | 91·0 | +41·1 | 81 | +36 |
| EDINBURGH | 53·8 | +16·0 | 46 | +13 | BOGNOR | 93·3* | ? | 83* | ? |
| MORPETH | 63·2 | ? | 54 | ? | WORTHING | 99·1 | ? | 88 | ? |
| NEWCASTLE-ON-TYNE | 57·8 | ? | 49 | ? | EASTBOURNE | 98·3 | +46·6 | 88 | +41 |
| OSWALDKIRK (Yorkshire) | | | | | VENTNOR HOSPITAL | 96·0 | ? | 86 | ? |
| HOLLESLEY BAY | 97·9 | ? | 87 | ? | SOUTHPORT | 84·0 | ? | 73 | ? |
| SHEFFIELD | 68·2 | ? | 60 | ? | COLWYN BAY | | ? | | ? |
| WORKSOP | 81·6 | +41·6 | 72 | +37 | ABERDOVEY | 90·3* | ? | 79* | ? |
| THURCASTON (Leicestershire) | 91·2 | +49·4 | 80 | +42 | TENBY | 93·4 | +42·5 | 83 | +38 |
| MARGATE | 83·5 | +38·5 | 75 | +34 | NEWQUAY | 89·5 | +39·5 | 81 | +35 |
| WESTBOURNE (Emsworth) | 99·8* | +48·4 | 89* | +41 | TORQUAY | 97·5 | +45·3 | 88 | +41 |
| | | | | | GUERNSEY | 94·5* | +34·0 | 86* | +30 |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD., LITH., 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 23. | *Third Series.*

WEEK ENDING SATURDAY, JUNE 10TH, 1899.

[*Price 6d.*
*Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS (See p. 134.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 79 | 35 | 60·8 | 47·2 | 53·5 | 2 above | 81 | +25 | 0 | − 2 | 475 | + 19 | 617 | − 2 |
| | 1. SCOTLAND, EAST | 81 | 38 | 66·9 | 48·5 | 57·1 | 4 above | 106 | +36 | 0 | − 1 | 570 | − 11 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 82 | 38 | 66·1 | 48·9 | 56·9 | 4 above | 104 | +30 | 0 | − 1 | 691 | +119 | 456 | − 93 |
| | 3. ENGLAND, EAST | 81 | 40 | 66·5 | 48·9 | 57·1 | 2 above | 106 | +18 | 0 | − 1 | 852 | +119 | 421 | −196 |
| | 4. MIDLAND COUNTIES | 84 | 37 | 72·5 | 47·5 | 59·1 | 4 above | 120 | +30 | 0 | − 1 | 868* | + 97 | 478 | −141 |
| | 5. ENGLAND SOUTH | 83 | 43 | 71·8 | 51·7 | 61·1 | 5 above | 134 | +39 | 0 | − 1 | 997 | +180 | 294 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 76 | 44 | 69·3 | 49·9 | 58·9 | 5 above | 118 | +41 | 0 | − 1 | 648 | + 17 | 413 | − 49 |
| | 7. ENGLAND, N.W. | 77 | 42 | 68·5 | 50·1 | 58·6 | 4 above | 116 | +34 | 0 | − 1 | 776 | +120 | 313 | −146 |
| | 8. ENGLAND, S.W. | 85 | 40 | 71·9 | 52·3 | 61·4 | 6 above | 136 | +47 | 0 | 0 | 972 | +170 | 240 | −121 |
| | 9. IRELAND, NORTH | 80 | 44 | 67·9 | 50·1 | 58·4 | 5 above | 115 | +36 | 0 | − 1 | 767 | + 55 | 323 | − 72 |
| | 10. IRELAND, SOUTH | 82 | 45 | 72·9 | 51·6 | 61·5 | 6 above | 137 | +51 | 0 | 0 | 1006 | +149 | 245 | − 54 |
| | —CHANNEL ISLANDS | 79 | 50 | 68·3 | 56·5 | 62·0 | 6 above | 140 | +46 | 0 | 0 | 1277 | +350 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 134.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principa Wheat-producing Districts. | 0. SCOTLAND, NORTH | 2 | 2 | 4 less | 100 | − 5 | 21·3 | + 1·4 | 32 | − 4 | 26 | − 3 | 570 | + 47 | 29 | + 3 |
| | 1. SCOTLAND, EAST | 1 | less than ½ | 5 less | 94 | +11 | 15·0 | + 2·9 | 53 | +11 | 44 | + 8 | 616 | + 43 | 32 | + 2 |
| | 2. ENGLAND, N.E. | 0 | — | 5 less | 85 | + 5 | 10·2 | + 0·4 | 55 | +17 | 47 | +13 | 589* | + 28 | 31 | + 1 |
| | 3. ENGLAND, EAST | 0 | — | 5 less | 77 | 0 | 9·2 | − 0·3 | 66 | +16 | 58 | +13 | 796 | +110 | 40 | + 6 |
| | 4. MIDLAND COUNTIES | 0 | — | 6 less | 77 | + 2 | 11·6 | + 0·8 | 74 | +33 | 64 | +28 | 697 | +125 | 38 | + 7 |
| | 5. ENGLAND, SOUTH | 0 | — | 5 less | 67 | − 6 | 9·9 | − 1·2 | 78 | +28 | 69 | +24 | 818 | +137 | 43 | + 8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 0 | — | 7 less | 96 | + 7 | 22·2 | + 2·4 | 70 | +25 | 59 | +20 | 621 | + 27 | 32 | + 1 |
| | 7. ENGLAND, N.W. | 0 | — | 6 less | 89 | + 8 | 14·8 | + 2·3 | 91 | +46 | 78 | +40 | 715* | +123 | 37 | + 6 |
| | 8. ENGLAND, S.W. | 0 | — | 5 less | 85 | + 3 | 18·8 | + 3·7 | 83 | +31 | 74 | +28 | 793 | + 73 | 41 | + 3 |
| | 9. IRELAND, NORTH | 0 | — | 6 less | 103 | + 9 | 16·2 | + 1·8 | 70 | +28 | 60 | +23 | 675 | +100 | 35 | + 5 |
| | 10. IRELAND, SOUTH | 1 | 1 | 5 less | 88 | 0 | 19·3* | + 3·3 | 79 | +34 | 69 | +29 | 761 | +102 | 40 | + 6 |
| | — CHANNEL ISLANDS | 0 | — | 5 less | 81 | − 8 | 13·1 | + 0·2 | 67 | + 8 | 60 | + 7 | 868 | + 69 | 46 | + 3 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was again very fine and dry generally, the only rain experienced being confined to the north of Scotland and a few isolated stations in the south-western parts of Ireland and England. In these latter regions some thunder and lightning occurred.

*Temperature* continued very high during the first few days, but fell very decidedly after the middle of the week. The highest of the maxima were recorded during the earlier half of the period, and ranged from 85° in England S.W., 84° in the Midland Counties, and 83° in England S., to 79° in Scotland N. and the Channel Islands, and 76° in Scotland W. On Thursday and Friday the daily maxima were much lower, being very little above 60° at most of our southern and central stations, and below that value in the east and north-east. The lowest of the minima, which occurred either on the 8th or 9th, ranged from 35° in Scotland N., and 37° in the Midland Counties, to 45° in Ireland S. and to 50° in the Channel Islands. The average values for the week ranged from 2° above the mean in Scotland N. and England E., to 6° above in England S.W. and the Channel Islands, as well as in Ireland S.

*Rainfall* was less than the mean in all districts. Over the greater part of the Kingdom rain was again entirely absent.

*Bright Sunshine* was again very abundant, although less so generally than it was during the preceding week. The percentage of the possible duration ranged from 78 in England N.W., 74 in England S.W., and 69 in England S. and Ireland S., to 44 in Scotland E., and to 26 in Scotland N.

*Barometer and Wind.*—The distribution of pressure was generally anticyclonic, but our extreme northern coasts were at first affected by a few small depressions, secondary to large systems moving south-eastwards over northern Europe. South-Westerly to Westerly winds were prevalent over our northern districts during the earlier days of the period, and light North-Easterly and Easterly airs in the south. By Thursday, however, the appearance of an anticyclonic centre over Scotland caused a cool Northerly and North-Easterly current to spread over the whole of Great Britain. By the end of the week the centre of the highest pressure had moved to the west of Ireland, and the wind in the northern districts had shifted to the North-Westward again.

207 | 90 Wy. & S., Ltd.
913 | 70 6 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 133 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 55 | 41 | 51·7 | 44·4 | 47·8 | − 0·6 | 41 | 0 | 4 | 0·60 | + 0·13 | * | * | * | * |
| | Stornoway | 67 | 40 | 59·6 | 47·0 | 52·9 | + 2·4 | 76 | 0 | 2 | 0·08 | − 0·56 | 21·0 | − 21·3 | 17 | − 18 |
| | Wick | 63 | 35 | 59·6 | 45·9 | 52·3 | + 1·8 | 72 | 0 | 4 | 0·23 | − 0·15 | * | * | * | * |
| | Lairg Ⓢ | 79 | 39 | 65·9 | 46·9 | 55·7 | + 4·5 | 96 | 0 | 2 | 0·03 | − 0·49 | * | * | * | * |
| | Glencarron Ⓢ | 69 | 45 | 60·8 | 48·0 | 54·0 | + 2·2 | 84 | 0 | 3 | 0·37 | − 0·84 | * | * | * | * |
| | Fort Augustus Ⓢ | 79 | 40 | 63·6 | 47·7 | 55·1 | + 2·6 | 92 | 0 | 1 | 0·10 | − 0·35 | 34·2 | + 4·7 | 28 | + 4 |
| | Fort William Ⓢ | 73 | 48 | 64·4 | 50·2 | 56·8 | + 3·5 | 104 | 0 | 1 | 0·20 | − 0·66 | 46·1 | + 5·8 | 38 | + 5 |
| 1. SCOTLAND E. | Nairn | 68 | 38 | 64·3 | 47·3 | 55·2 | + 2·1 | 92 | 0 | 1 | 0·10 | − 0·32 | * | * | * | * |
| | Aberdeen | 73 | 41 | 63·7 | 49·6 | 56·2 | + 3·7 | 99 | 0 | 1 | 0·03 | − 0·44 | 44·4 | − 1·4 | 36 | − 2 |
| | Braemar Ⓢ | 76 | 38 | 67·1 | 47·1 | 56·4 | + 5·7 | 101 | 0 | 1 | 0·01 | − 0·49 | 53·8† | +11·0† | 44† | + 7† |
| | Ochtertyre Ⓢ | 81 | 41 | 72·4 | 48·4 | 59·6 | + 5·4 | 123 | 0 | 0 | — | − 0·65 | * | * | * | * |
| | Leith | 77 | 43 | 68·0 | 50·3 | 58·5 | + 4·0 | 116 | 0 | 0 | — | − 0·46 | * | * | * | * |
| | Marchmont Ⓢ | 76 | 43 | 66·1 | 48·0 | 56·4 | + 3·9 | 101 | 0 | 0 | — | − 0·60 | 59·8 | +16·9 | 50 | +14 |
| 2. ENGLAND, N.E. | Alnwick Castle | 80 | 38 | 69·1 | 48·4 | 58·0 | + 5·8 | 112 | 0 | 0 | — | − 0·51 | * | * | * | * |
| | Durham | 82 | 38 | 69·6 | 47·1 | 57·6 | + 3·7 | 109 | 0 | 0 | — | − 0·50 | 55·8 | +13·6 | 47 | +13 |
| | Shields | 78 | 42 | 64·7 | 49·7 | 56·7 | + 4·0 | 103 | 0 | 0 | — | − 0·42 | * | * | * | * |
| | Scarborough Ⓜ | 76 | 42 | 65·0 | 48·4 | 56·1 | + 2·4 | 99 | 0 | 0 | — | − 0·50 | * | * | * | * |
| | York | | | | | | | | | | | | | | | |
| | Spurn Head | 70 | 48 | 61·9 | 50·7 | 55·9 | + 2·2 | 97 | 0 | 0 | — | − 0·42 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 80 | 42 | 69·5 | 47·3 | 57·6 | + 2·3 | 109 | 0 | 0 | — | − 0·52 | 57·6 | + 9·6 | 50 | + 8 |
| | Yarmouth | 65 | 48 | 61·0 | 51·0 | 55·7 | + 1·0 | 96 | 0 | 0 | — | − 0·46 | * | * | * | * |
| | Geldeston | 80 | 40 | 67·1 | 46·5 | 56·1 | + 1·1 | 99 | 0 | 0 | — | − 0·43 | 63·3 | +12·2 | 56 | +10 |
| | Cambridge | | | | | | | | | | | | | | | |
| | Felixstowe | 70 | 48 | 63·4 | 51·7 | 57·1 | + 3·4 | 106 | 0 | 0 | — | ? | 68·8 | ? | 60 | ? |
| | Rothamsted | 81 | 47 | 71·3 | 48·1 | 58·9 | + 3·5 | 118 | 0 | 0 | — | − 0·49 | 70·3 | +24·7 | 62 | +21 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 84 | 37 | 73·0 | 44·6 | 57·8 | + 2·2 | 111 | 0 | 0 | — | − 0·54 | * | * | * | * |
| | Loughborough | 83 | 40 | 72·9 | 46·7 | 58·9 | + 2·2 | 118 | 0 | 0 | — | − 0·52 | * | * | * | * |
| | Stamford (Duddington) | 81 | 43 | 71·4 | 48·4 | 59·1 | + 3·3 | 120 | 0 | 0 | — | − 0·50 | * | * | * | * |
| | Cheadle Ⓜ | 78 | 41 | 70·7 | 49·6 | 59·4 | + 5·6 | 122 | 0 | 0 | — | − 0·65 | * | * | * | * |
| | Shirley (near Solihull) | 80 | 42 | 71·3 | 48·1 | 58·9 | + 3·3 | 118 | 6 | 0 | — | ? | * | * | * | * |
| | Churchstoke Ⓜ | 79 | 38 | 74·3 | 44·7 | 58·5 | + 4·5 | 116 | 0 | 0 | — | − 0·56 | 93·1 | +18·9 | 80 | +41 |
| | Hereford (Belmont) Ⓜ | 80 | 37 | 73·8 | 46·2 | 59·0 | + 2·7 | 119 | 0 | 0 | — | − 0·52 | * | * | * | * |
| | Cirencester | 80 | 40 | 71·6 | 48·3 | 59·1 | + 4·6 | 120 | 0 | 0 | — | − 0·55 | 84·0 | +38·0 | 74 | +33 |
| | Oxford | 82 | 47 | 73·6 | 50·7 | 61·4 | + 5·4 | 136 | 0 | 0 | — | − 0·53 | 75·2 | +29·6 | 66 | +25 |
| 5. ENGLAND, S. | London | 83 | 48 | 76·0 | 51·0 | 62·6 | + 5·1 | 144 | 0 | 0 | — | − 0·48 | 68·2† | +26·0† | 60† | +22† |
| | Cranley Ⓜ | 81 | 46 | 73·3 | 48·2 | 59·9 | + 3·0 | 125 | 0 | 0 | — | ? | * | * | * | * |
| | Dungeness | 74 | 50 | 65·1 | 52·7 | 58·5 | + 2·8 | 116 | 0 | 0 | — | − 0·42 | * | * | * | * |
| | Hastings (St. Leonards) | 79 | 48 | 68·3 | 52·2 | 59·7 | + 4·0 | 124 | 0 | 0 | — | − 0·43 | 80·0 | +25·0 | 71 | +22 |
| | Southampton | 83 | 47 | 75·7 | 52·0 | 63·0 | + 5·8 | 147 | 0 | 0 | — | − 0·45 | 86·1 | +36·0 | 76 | +30 |
| | Hurst Castle | 77 | 48 | 72·1 | 52·6 | 61·7 | + 5·2 | 138 | 0 | 0 | — | − 0·45 | * | * | * | * |
| | Shaftesbury Ⓜ | 80 | 43 | 72·4 | 53·4 | 62·2 | + 7·9 | 141 | 0 | 0 | — | − 0·45 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 67 | 45 | 63·2 | 50·7 | 56·5 | + 3·0 | 102 | 0 | 1 | 0·04 | − 0·91 | * | * | * | * |
| | Glasgow | 76 | 48 | 70·7 | 51·2 | 60·3 | + 6·8 | 128 | 0 | 0 | — | − 0·68 | 52·1 | +13·7 | 43 | +11 |
| | Glenlee Ⓢ | 76 | 44 | 73·0 | 47·6 | 59·4 | + 6·1 | 122 | 0 | 0 | — | − 0·80 | * | * | * | * |
| | Douglas (Isle of Man) | 75 | 45 | 70·2 | 49·9 | 59·3 | + 5·6 | 121 | 0 | 0 | — | − 0·55 | 87·4 | +35·7 | 75 | +30 |
| 7. ENGLAND, N.W. | Stonyhurst | 73 | 43 | 70·1 | 48·3 | 58·4 | + 4·0 | 115 | 0 | 0 | — | − 0·80 | 90·1 | +45·0 | 77 | +38 |
| | Blackpool Ⓜ | 73 | 42 | 69·4 | 47·0 | 57·4 | + 3·1 | 108 | 0 | 0 | — | − 0·52 | 83·1 | +37·9 | 72 | +33 |
| | Manchester (Prestwich) | 77 | 42 | 71·7 | 47·4 | 58·7 | + 4·1 | 117 | 0 | 0 | — | − 0·70 | 83·3 | ? | 71 | ? |
| | Liverpool Obsy. (Bidston) | 71 | 47 | 66·6 | 52·9 | 59·3 | + 4·3 | 121 | 0 | 0 | — | − 0·52 | 93·6 | ? | 81 | ? |
| | Llandudno Ⓜ | 71 | 48 | 68·5 | 52·3 | 59·8 | + 4·3 | 125 | 0 | 0 | — | − 0·48 | 101·1 | +56·1 | 87 | +48 |
| | Holyhead | 69 | 49 | 64·4 | 52·4 | 58·0 | + 3·3 | 112 | 0 | 0 | — | − 0·48 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 85 | 40 | 79·4 | 45·6 | 61·3 | + 6·1 | 135 | 0 | 0 | — | − 0·70 | * | * | * | * |
| | Pembroke | 75 | 50 | 70·6 | 54·9 | 62·2 | + 7·8 | 141 | 0 | 0 | — | − 0·48 | 94·1 | +41·3 | 83 | +37 |
| | Clifton | | | | | | | | | | | | * | * | * | * |
| | Arlington (N. Devon) | 84 | 44 | 74·7 | 51·0 | 62·0 | + 8·5 | 140 | 0 | 0 | — | − 0·75 | * | * | * | * |
| | Cullompton Ⓜ | 81 | 41 | 74·8 | 48·8 | 60·9 | + 5·1 | 132 | 0 | 1 | 0·25 | − 0·23 | 71·8 | +24·8 | 64 | +22 |
| | Falmouth | 76 | 50 | 67·8 | 55·8 | 61·4 | + 5·9 | 136 | 0 | 0 | — | − 0·54 | 86·7 | +33·2 | 77 | +29 |
| | Plymouth | 76 | 47 | 69·5 | 54·9 | 61·7 | + 4·3 | 138 | 0 | 1 | 0·04 | − 0·44 | 77·2 | +28·2 | 69 | +25 |
| | Prawle Point | 76 | 46 | 66·3 | 54·9 | 60·3 | + 5·6 | 128 | 0 | 0 | — | − 0·42 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 59 | 44 | 56·9 | 49·9 | 53·2 | − 0·2 | 78 | 0 | 0 | 0·02‡ | ? | * | * | * | * |
| | Londonderry | 76 | 49 | 73·6 | 51·6 | 61·9 | + 6·5 | 139 | 0 | 0 | — | − 0·62 | * | * | * | * |
| | Edenfel (Omagh) | 80 | 48 | 73·3 | 49·7 | 60·7 | + 8·3 | 131 | 0 | 0 | — | − 0·61 | * | * | * | * |
| | Belmullet | 73 | 49 | 65·7 | 51·1 | 57·9 | + 3·2 | 111 | 0 | 1 | 0·02 | − 0·70 | * | * | * | * |
| | Markree Castle | 76 | 46 | 70·4 | 50·5 | 59·8 | + 6·2 | 125 | 0 | 0 | — | − 0·68 | 67·7 | +26·2 | 58 | +22 |
| | Armagh | 79 | 47 | 72·0 | 48·2 | 59·3 | + 5·4 | 121 | 0 | 0 | — | − 0·50 | 72·6 | +30·7 | 62 | +26 |
| | Donaghadee | 67 | 48 | 63·4 | 50·0 | 56·2 | + 2·0 | 99 | 0 | 0 | — | − 0·54 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | * | * | * | * |
| 10. IRELAND S. | Dublin | 74 | 51 | 70·9 | 54·8 | 62·3 | + 6·4 | 142 | 0 | 0 | — | − 0·49 | 90·9 | +43·8 | 78 | +37 |
| | Parsonstown | 82 | 47 | 75·9 | 50·0 | 62·0 | + 7·6 | 140 | 0 | 0 | — | − 0·59 | 68·2 | +27·4 | 59 | +24 |
| | Kilkenny | 79 | 47 | 75·9 | 49·6 | 61·8 | + 7·0 | 139 | 0 | 0 | — | − 0·51 | * | * | * | * |
| | Roche's Point | 73 | 51 | 67·9 | 54·6 | 60·8 | + 4·6 | 132 | 0 | 0 | — | − 0·74 | * | * | * | * |
| | Valencia | 79 | 47 | 71.0 | 52·1 | 60·9 | + 5·2 | 132 | 0 | 1 | 0·18 | − 0·50 | 78·3 | +30·3 | 69 | +26 |
| | Killarney | 79 | 47 | 74·6 | 49·7 | 61·3 | + 6·5 | 135 | 0 | 2 | 0·16 | ? | * | * | * | * |
| | Foynes | 79 | 45 | 73·2 | 50·7 | 61·5 | + 6·6 | 137 | 0 | 1 | 0·25 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 71 | 53 | 65·9 | 55·4 | 60·3 | + 4·5 | 128 | 0 | 0 | — | − 0·44 | 67·4 | ? | 60 | ? |
| | Jersey | 79 | 50 | 70·6 | 57·6 | 63·7 | + 6·6 | 152 | 0 | 0 | — | − 0·47 | 68·9 | + 11·1 | 62 | +10 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

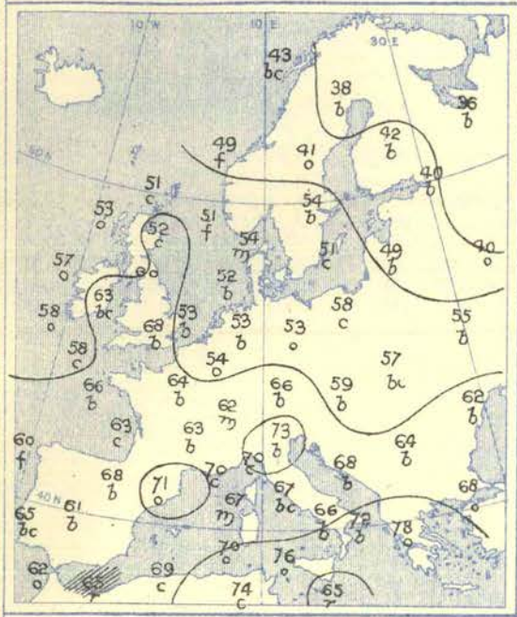
Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

‡ Wet Fog

## Sunday, 4th June.

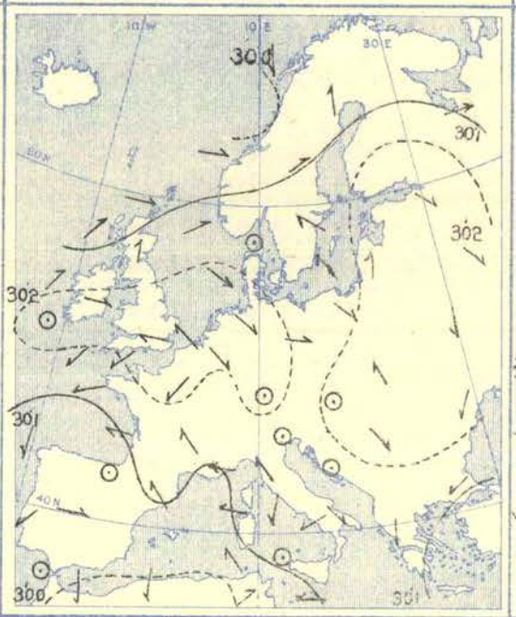
### Temperature and Weather.

8 a.m.

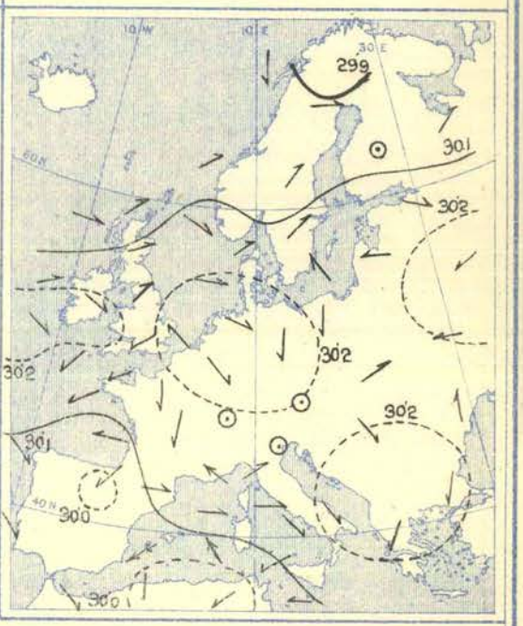


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair or fine over the greater part of Europe, but dull in the extreme west of our Islands, and foggy on the Norwegian coasts. Dull at many of the German and Mediterranean stations, with rain at Malta, Nemours and Oran. A little rain falling later on our own extreme north and north-west coasts, and larger quantities in some parts of France and Germany; thunderstorms occurring at Belfort and on the Puy-de-Dôme.

*Temperature* risen generally, but fallen in Denmark and north Germany.—Morning readings highest, 78° at Patras, 76° at Palermo and 74° at La Calle; above 65° over southern Europe generally, and also in London and the Channel Islands. Lowest, 36° at Archangel, 33° at Haparanda, and 40° at St. Petersburg and Moscow. Rising during day to 75° and upwards over the central and southern parts of England, to 80° at Oxford and 83° in London. Exceeding 80° also in many parts of France and southern Italy, and reaching 86° at Bilbao and 88° at Florence.

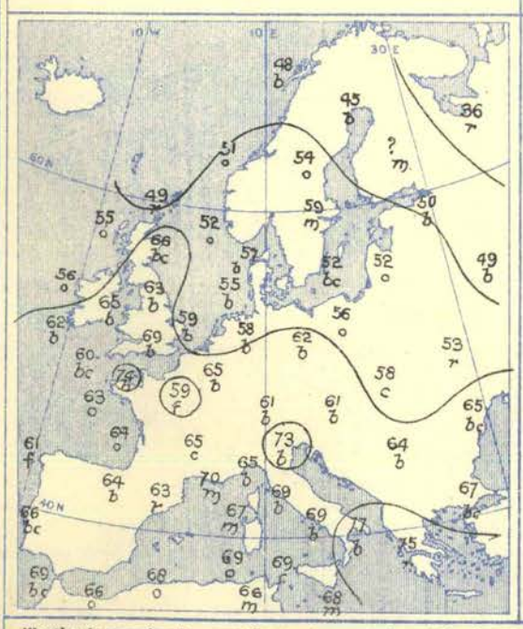
*Wind* light from the Southward or South-Westward over the northern parts of the United Kingdom and also at several of the Scandinavian stations, but Easterly or South-Easterly in the south of Sweden. Light from the Eastward or North-Eastward over the south of England and the greater part of France; variable in Spain, Italy, Austria and the south of Russia. Subsequently veering to the Westward in the north of our Islands; no important change occurring elsewhere.

*Barometer* highest, 30·2 ins. and upwards in two anticyclones,—one lying over the greater part of Ireland, England, the Netherlands, Germany and the north-east of France and the other over Austria and the west and south of Russia. Lowest, 30·0 ins. and less in a shallow depression off the northern parts of the Norwegian coasts and also in another disturbance over Algeria. Norwegian depression subsequently moving north-eastward; new and very shallow disturbance appearing off the north of Scotland.

## Monday, 5th June.

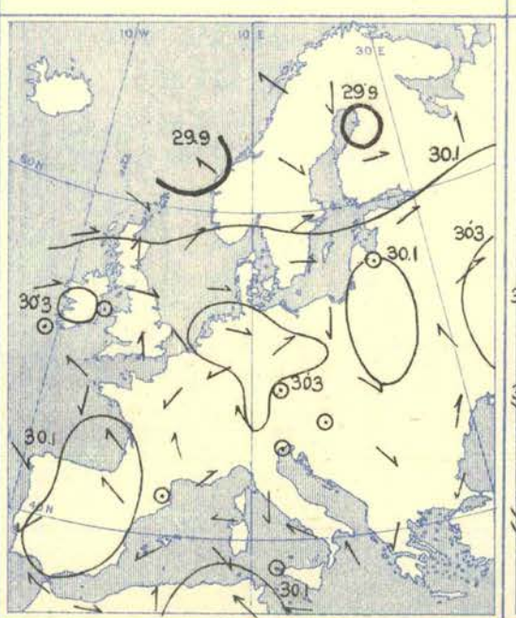
### Temperature and Weather.

8 a.m.

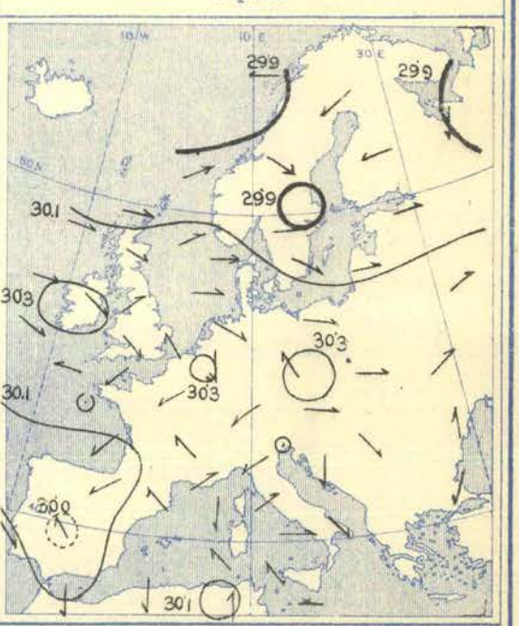


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over the greater part of our Islands and the Continent, but dull on our extreme north and north-west coasts, as well as in the west of Norway, with rain at Sumburgh Head. Rain falling also at Perpignan, Barcelona and Patras, as well as at Kiev and Archangel. No important change occurring over western Europe during day, but rain falling at some of the Scandinavian stations. Thunderstorms occurring at Rochefort and Sfax.

*Temperature* risen in most countries, but fallen in France and Germany. Morning readings highest, (1) 77° at Brindisi and 75° at Palma and Patras; (2) 74° at Jersey and 69° in London; above 60° in most parts of Great Britain. Lowest, 36° at Archangel, 45° at Haparanda, 47° at Ulesborg, and 48° at Bodö. Rising during day to 75° and upwards over central Ireland, to 80° and upwards in several parts of England, France and southern Europe, to 86° at Leghorn, and to 87° at Charleville.

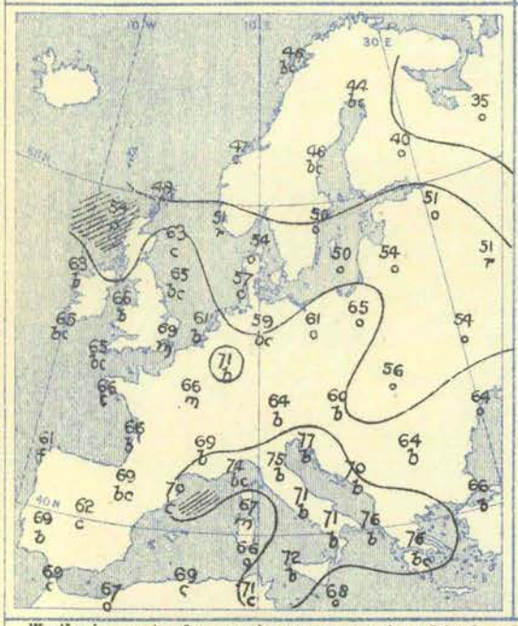
*Wind* light from the Eastward (South-East to North-East) in the south of England, and also over France, Spain and western Germany. Light to moderate from the Westward or South-Westward in the north of our Islands, and also over Denmark, the southern parts of Scandinavia and northern Russia; Easterly or South-Easterly in the west of Norway. North-Westerly over Austria and eastern Germany, and Northerly in Greece, but variable in Italy and also in the south of Russia. No important change occurring later.

*Barometer* highest, 30·2 ins. to 30·3 ins. and upwards in an anticyclone embracing a considerable portion of western, central and southern Europe, and also in another system over central Russia. Lowest, 29·9 ins. and less in two shallow depressions, one lying over Lapland, and the other off the west of Norway. No decided change occurring over western Europe during day, but new depression appearing over the southern parts of the Gulf of Bothnia

## Tuesday, 6th June.

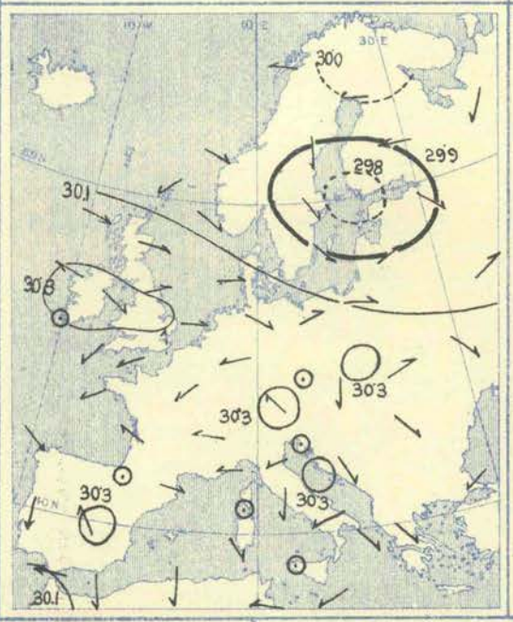
### Temperature and Weather.

8 a.m.

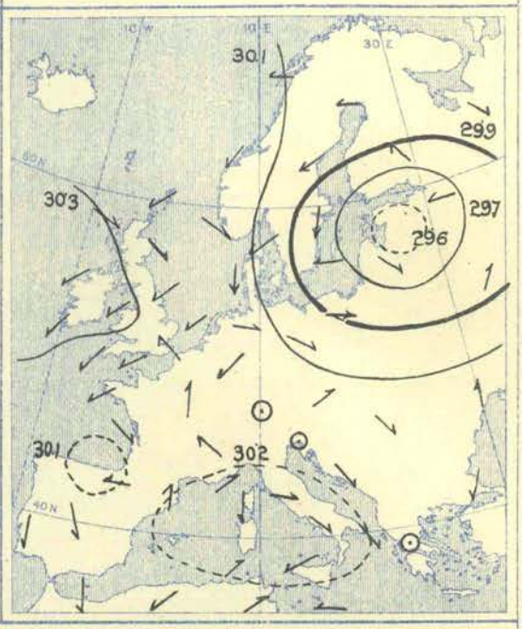


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over the greater part of our Islands and the Continent, but with haze at many of the English and French stations. Dull in the north of Scotland, as well as over Denmark, the south of Scandinavia and the greater part of Russia; rain falling at Sumburgh Head, Skudesnaes, and also over the Gulf of Finland and at Moscow. Rain occurring later in the extreme north and north-west of our Islands generally, as well as at several of the Scandinavian stations; thunder heard at Parsonstown, and thunderstorms occurring in many parts of France.

*Temperature* risen generally, but fallen in the north and east of Scotland and also in Scandinavia. Morning readings highest, 77° at Toulon and Trieste, 76° at Brindisi and Athens, and 75° at Leghorn; above 65° in many parts of Ireland and England. Lowest, 35° at Archangel, 40° at Kuopio, and 44° at Haparanda. Rising during day to 80° and upwards over the central parts of Ireland and England, and also over the greater part of France and southern Europe; reaching 83° in London and at Brussels, and 86° at Paris.

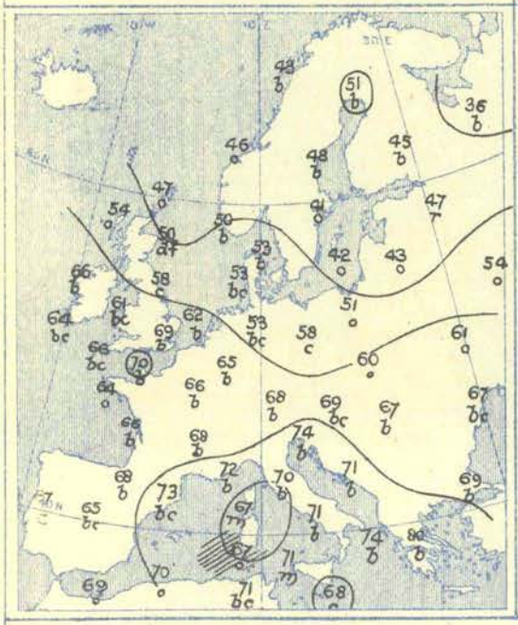
*Wind* light from the Eastward or North-Eastward over the south of England and the greater part of France, but calm or variable in the extreme south of France. Variable over the more central parts of the United Kingdom; light from the Westward or South-Westward in the north of Scotland. Moderate to strong from the Westward or North-Westward over Denmark, Germany and the south of Scandinavia; Easterly in the northern parts of Russia and Scandinavia. Variable in Germany and Austria; North-Westerly over the Adriatic and Greece. Subsequently veering to the North-Westward in Scotland, and to the Northward in Denmark and the south of Scandinavia.

*Barometer* highest, 30·1 ins. to 30·3 ins. or a little more in an anticyclone covering all but the northern and extreme south-western parts of Europe. Lowest, 29·8 ins. and less in a well-marked depression with its centre over the south of the Gulf of Bothnia. Depression subsequently moving south-eastwards and becoming rather deeper; barometer rising in nearly all parts of western Europe.

## Wednesday, 7th June.

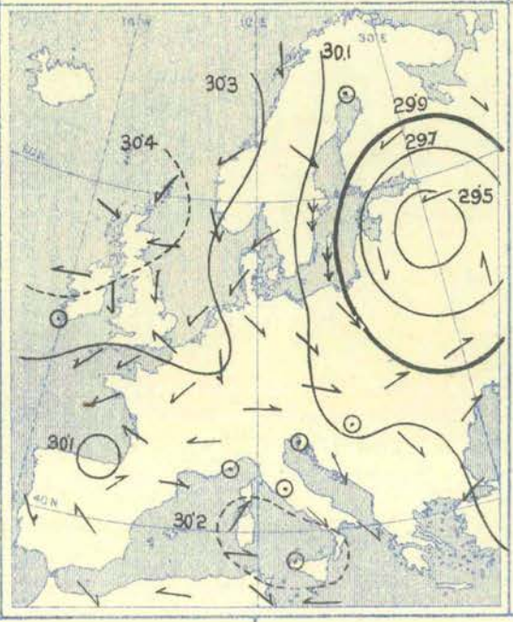
### Temperature and Weather.

8 a.m.

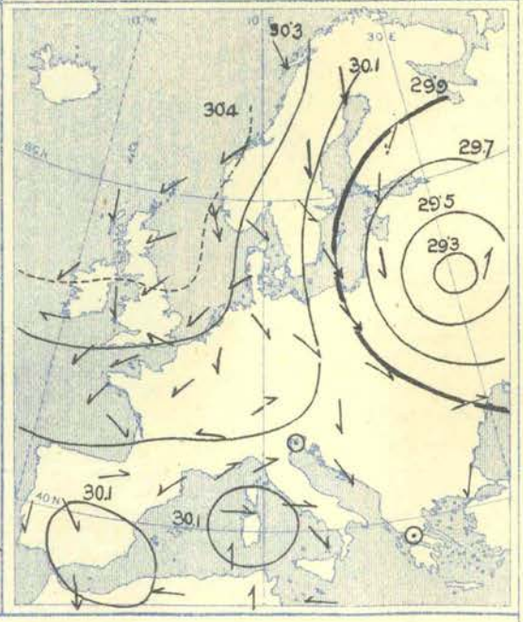


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine and bright over Ireland, England and France, as well as the Peninsula; dull, with slight drizzle over Scotland, dull and rainy over the north of Russia. A thunderstorm later at Valencia, lightning at Jersey, considerable rain at Trieste and Madrid. Becoming less settled at our own stations, and in the north of France.

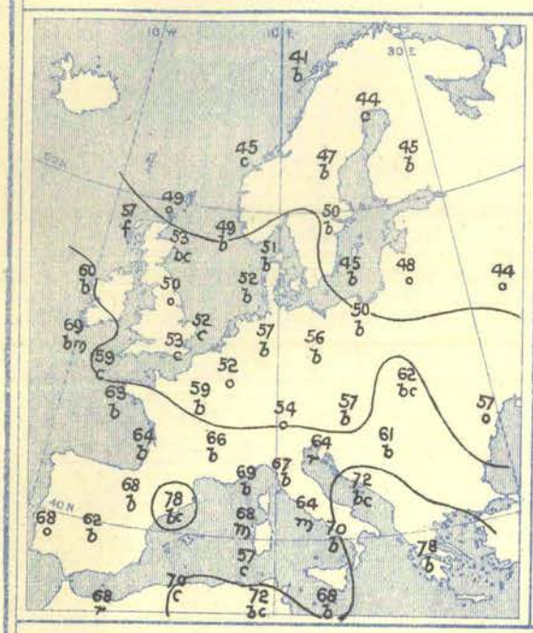
*Temperature* fallen decidedly over Sweden and the north of Russia at first, hardly changed in our Islands. Morning readings highest, 80° at Athens, 73° at Barcelona, 70° at Jersey, 68° to 64° in the west of France, 66° to 60° in the south and south-west of our Islands. Lowest, 36° at Archangel, 37° at Helsingfors, 45° to 40° over the northern and eastern parts of the Baltic. Falling fast over our Islands later, and air becoming raw and chilly.

*Wind* light and anticyclonic (Northerly to Easterly) over our Islands and France; cyclonic over Finland, the north of Russia and the Baltic (North-East to North-West) and strong in force; Southerly, light, over central Russia. The North-East wind freshening later over England.

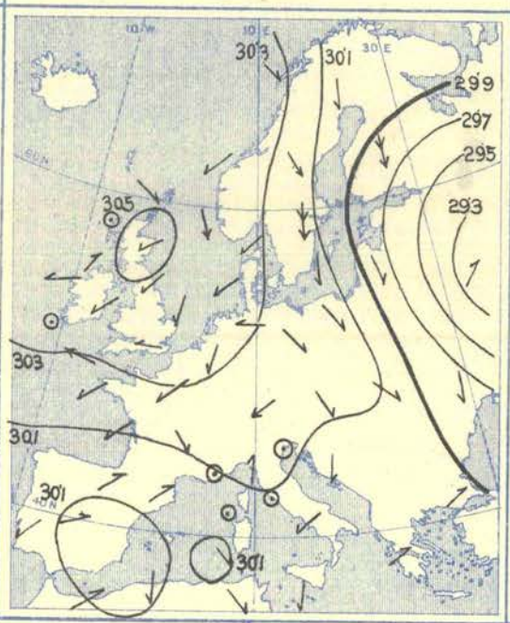
*Barometer* highest, 30·4 ins. and more over the north and west of our Islands, and exceeding 30·3 ins. over nearly the whole of the United Kingdom; exceeding 30·1 ins. all over France, Italy and the Mediterranean. Lowest, 29·5 ins. and less over the western parts of Russia. Gradients slight over our Islands. Russian depression moving eastwards later.

## Thursday, 8th June.

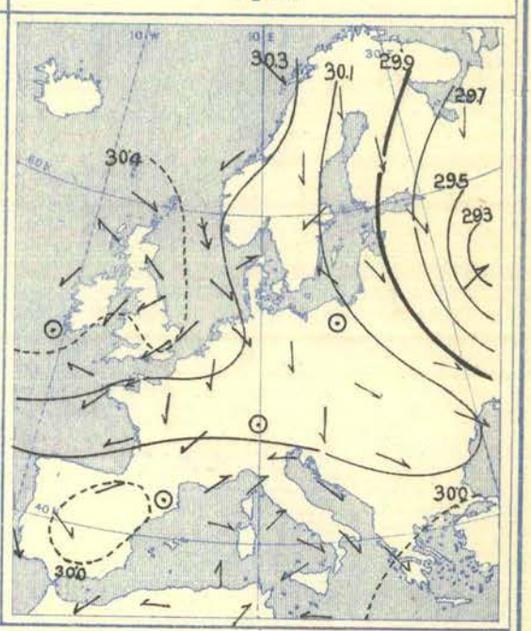
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over nearly the whole of Europe, but dull in the more central parts of the United Kingdom and foggy at Stornoway and Malin Head. Dull also at most of the Russian stations, with rain at Nicolaieff. Sky clearing later at several of our central stations; distant thunder heard at Roches Point in evening.

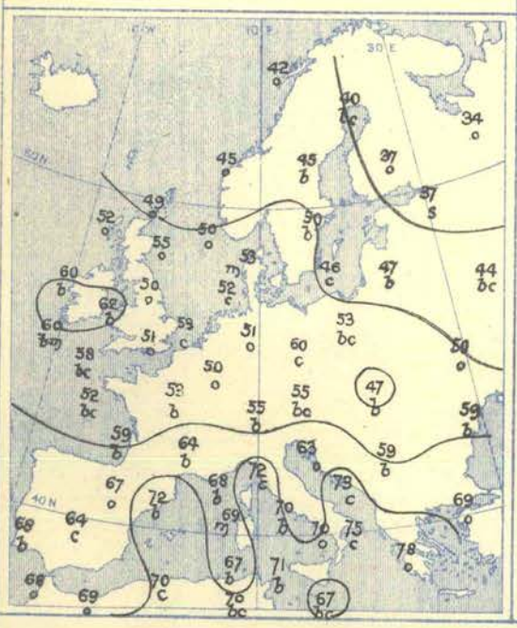
*Temperature* fallen considerably over central England and also over south Germany and to a less extent in most other parts of Europe. Morning readings highest, 78° at Patras, 77° at Athens and Constantinople, and 72° at Lesina and La Calle; above 65° in most parts of southern Europe and also in the south-west of Ireland. Lowest, 41° at Bodö, 44° at Haparanda and Moscow, and 45° at Uleaborg, Kuopio and Christiansund. Daily maxima over our Islands much lower than of late; thermometer remaining below 60° on most parts of our north and east coasts, and below 70° at all stations excepting Parsonstown and Valencia. Exceeding 80° in the west and south of France.

*Wind* light to fresh from the North-Eastward over England, the Netherlands, and the north of France; light from the Eastward in Ireland and Scotland. Northerly or North-Westerly over the greater part of northern and central Europe, and strong to a gale in force at Stockholm and Kuopio. Light from the South-Westward or Westward over Spain and the extreme south of France, variable over Italy and the Mediterranean. No important change occurring later.

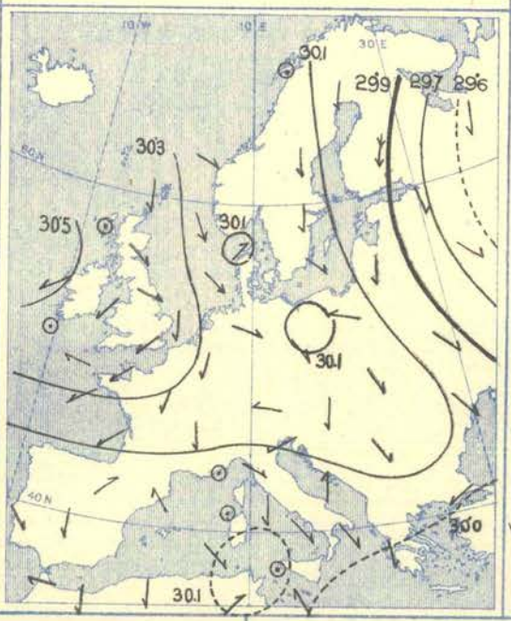
*Barometer* highest, 30·5 ins. and upwards in Scotland, 30·1 ins. and upwards in an anticyclone covering the whole of western and central Europe. Lowest, 29·3 ins. and less in a well-marked and rather deep depression over central Russia. Slight fall of barometer taking place over western Europe during day, but general distribution of pressure remaining unchanged.

## Friday, 9th June.

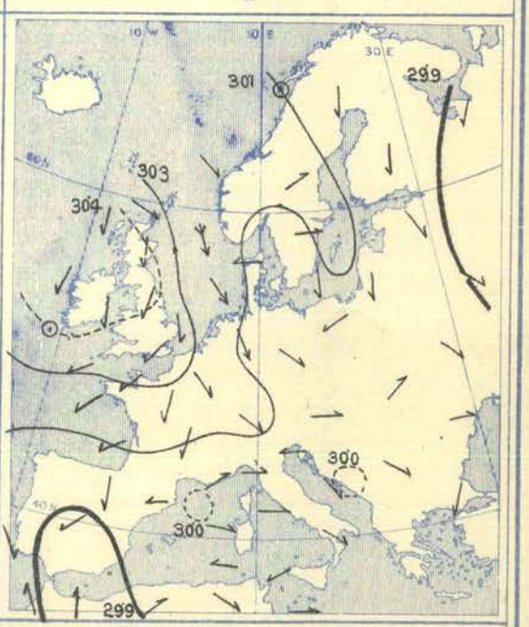
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine all over southern and western Europe, and the British Isles, but at first dull over our eastern and south-eastern counties, cloudy and unsettled in the north of Russia with rain in parts of northern Europe, snow at St. Petersburg. A little rain later in some parts of northern Europe, Russia and the south-west of France, thunder and lightning at Biarritz.

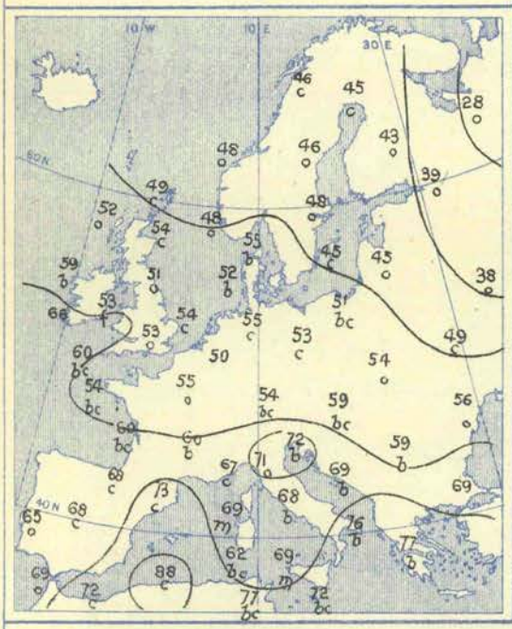
*Temperature* risen over central Europe, little changed elsewhere. Morning readings highest, 78° at Athens, 70° and more at many of the Mediterranean stations; 63° to 60° in the south and west of Ireland, and some parts of Germany. Lowest, 34° at Archangel, 37° at St. Petersburg, and below 50° all over northern Europe; 49° at Sumburgh Head. Rising later to between 65° and 70° in some parts of Great Britain, to 74° at Parsonstown, to 69° at Paris, 82° at Rochefort and Perpignan, 90° in several parts of Algeria.

*Wind* light to moderate and anticyclonic over our Islands. North-Westerly at our northern stations, North-Easterly (fresh) in the south, Northerly (fresh to a gale) over northern Europe, North-Westerly in the south of Russia. Light and variable over the Mediterranean.

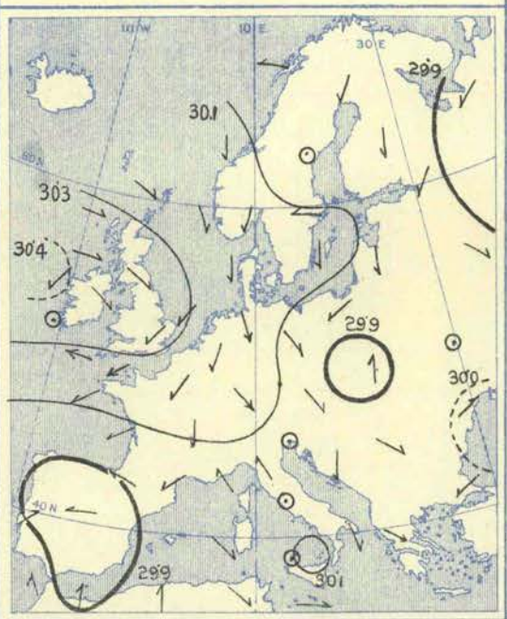
*Barometer* highest 30·51 ins. at Belmullet, and exceeding 30·3 ins. all over our Islands and the north of France. Lowest, 29·6 ins. and less over the north of Russia; and below 30·0 ins. over Algeria and the south-eastern parts of the Mediterranean. Falling slowly over our Islands later, and the west and south of France. Rising slightly over northern Europe.

## Saturday, 10th June.

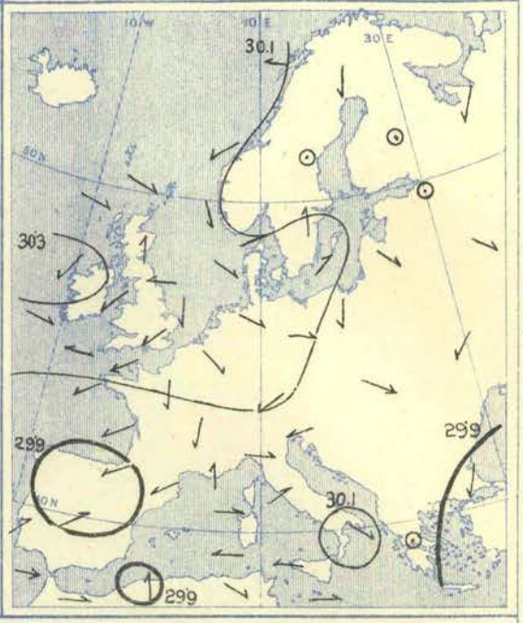
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the British Islands, the North Sea and France, but dull and hazy at many of the English stations and in Norway and Sweden; cloudy or overcast and rather unsettled in central Europe and the north of Russia; fine over the Mediterranean. A little rain later in the west of Norway and a thunderstorm at Biarritz; remaining fine over the other parts of western Europe.

*Temperature* little changed in our Islands; fallen over the Mediterranean; risen a little in the north of Russia. Morning readings highest, 77° at Patras, and above 70° at many of the Mediterranean stations and at Bilbao; 66° to 60° in the south of Ireland, and above 50° over central Europe, France and the British Islands. Lowest, 28° at Archangel, 38° at Moscow, 39° at St. Petersburg, 48° at Stockholm, Christiansund and Skudesnaes, 49° at Kieff. Rising later to between 60° and 68° in Scotland, to 70° in some parts of England, to 78° at Parsonstown, to 79° in the south-west of France, and to 88° (locally) at Ile d'Aix.

*Wind* light to moderate over north-western and western Europe, and anticyclonic in direction—Northerly over the northern countries, North-Easterly to Easterly in the south. A cyclonic circulation of light breezes prevalent both over northern and central Europe.

*Barometer* highest, 30·4 ins. to 30·3 ins. over the United Kingdom; 30·2 ins. to 30·1 ins. over France and above 30·1 ins. over Sicily. Lowest, below 29·9 ins. in shallow depressions over the north of Russia, central Europe and central Spain. The British anticyclone decreasing in intensity later and moving south-eastwards.

### GENERAL NOTES.

At the beginning of this week pressure was rather high all over the British Islands and France, and shallow depressions were moving from north-west to south-east over the northern and central parts of Russia, their secondaries in the meantime just skirting the north of Scotland, where they caused a little rain. Over Ireland, England and France, readings were very uniform, and as the anticyclones followed one another the weather was fine and very warm (maxima 80° to 83° in many parts of England).

On Wednesday, however, a change occurred; a high pressure area of considerable size advanced over the northern parts of the Kingdom from the Atlantic, and as pressure gave way a little simultaneously over southern Europe and considerably over Russia temperature fell fast, and a definite North-Easterly breeze set in over our Islands and France. The days became very cool in those regions instead of hot, and the nights cold for the time of year, but the dry weather extended to the most northern parts of the Kingdom, while less settled conditions prevailed over central Europe. Later on thunderstorms were reported in the south-west of France.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 134.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 24·9 | ? | 20 | ? | WATERGATE (Emsworth) | 83·0 | ? | 73 | ? |
| STRATHPEFFER SPA | 35·4 | - 5·1 | 29 | - 4 | BRIGHTON | 75·1 | +24·3 | 66 | +21 |
| EDINBURGH | 55·1 | +17·2 | 46 | +14 | BOGNOR | 81·7* | ? | 72* | ? |
| MORPETH | 58·7 | ? | 50 | ? | WORTHING | 81·5 | ? | 72 | ? |
| NEWCASTLE-ON-TYNE | 45·8 | ? | 39 | ? | EASTBOURNE | 81·6 | +30·0 | 72 | +26 |
| OSWALDKIRK (Yorkshire) | 59·3 | +19·7 | 51 | +17 | VENTNOR HOSPITAL | 79·4 | ? | 70 | ? |
| HOLLESLEY BAY | 68·1 | ? | 60 | ? | SOUTHPORT | 96·3 | ? | 82 | ? |
| SHEFFIELD | 60·3 | ? | 52 | ? | COLWYN BAY | | ? | | ? |
| WORKSOP | 58·6 | +19·1 | 51 | +17 | ABERDOVEY | 90·1* | ? | 78* | ? |
| THURCASTON (Leicestershire) | 70·1 | +28·6 | 60 | +23 | TENBY | 96·2 | +43·7 | 84 | +38 |
| MARGATE | 60·5 | +15·7 | 54 | +14 | NEWQUAY | 73·4 | +21·7 | 66 | +20 |
| WESTBOURNE (Emsworth) | 85·1* | +34·1 | 75* | +28 | TORQUAY | 81·9 | +28·1 | 73 | +25 |
| | | | | | GUERNSEY | 65·8* | + 5·7 | 59* | + 4 |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| DATE OF REPORT. | NAMES OF STATIONS. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| Week ending April 29th, 1899 | Cranley | 60 | 39 | 56·1 | 42·3 | 48·9 | +0·2 | 48 | 0 | 7 | 0·68 | ? | — | — | — | — |
| " " " " | Colwyn Bay | — | — | — | — | — | — | — | — | — | — | — | 17·0 | ? | 17 | ? |
| " " May 13th, " | Churchstoke | 63 | 30 | 56·5 | 39·4 | 47·5 | -0·9 | 49 | 7 | 4 | 0·48 | +0·03 | 36·6 | - 4·2 | 34 | - 4 |
| " " " " | Cranley | 66 | 36 | 62·2 | 39·7 | 50·3 | -1·0 | 68 | 6 | 2 | 0·02 | ? | — | — | — | — |
| " " " 29th, " | Cranley | ? 68 | 44 | 60·0 | 47·3 | 53·3 | +0·8 | 79 | 0 | 5 | 1·08 | ? | — | — | — | — |
| " " " " | Colwyn Bay | — | — | — | — | — | — | — | — | — | — | — | 34·6 | ? | 31 | ? |

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 24.] *Third Series.* WEEK ENDING SATURDAY, JUNE 17TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS (See p. 140.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH - | 84 | 40 | 68·1 | 47·5 | 57·1 | 5 above | 106 | +43 | 0 | - 2 | 581 | + 62 | 617 | - 4 |
| | 1. SCOTLAND, EAST - | 85 | 39 | 71·2 | 46·1 | 57·8 | 4 above | 111 | +34 | 0 | 0 | 681 | + 23 | 669 | + 20 |
| | 2. ENGLAND, N.E. - | 80 | 34 | 64·3 | 44·2 | 53·5 | 1 below | 81 | - 1 | 0 | 0 | 772 | +118 | 456 | - 93 |
| | 3. ENGLAND, EAST - | 76 | 34 | 64·0 | 44·4 | 53·5 | 3 below | 81 | -14 | 0 | 0 | 933 | +105 | 421 | -196 |
| | 4. MIDLAND COUNTIES | 81 | 34 | 71·5 | 44·4 | 57·0 | 0 (average) | 105 | + 9 | 0 | 0 | 973 | +105 | 478 | -141 |
| | 5. ENGLAND SOUTH - | 79 | 38 | 67·6 | 47·0 | 56·5 | 1 below | 102 | 0 | 0 | 0 | 1099 | +180 | 294 | -183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST - | 81 | 40 | 72·5 | 48·4 | 59·6 | 5 above | 123 | +40 | 0 | 0 | 771 | + 57 | 413 | - 49 |
| | 7. ENGLAND, N.W. - | 80 | 41 | 69·0 | 49·7 | 58·7 | 2 above | 117 | +27 | 0 | 0 | 893 | +147 | 313 | -146 |
| | 8. ENGLAND, S.W. - | 83 | 40 | 70·5 | 49.8 | 59·4 | 3 above | 122 | +26 | 0 | 0 | 1096* | +198 | 240 | -121 |
| | 9. IRELAND, NORTH - | 81 | 44 | 68·7 | 50·8 | 59·1 | 4 above | 120 | +35 | 0 | 0 | 887 | + 90 | 323 | - 72 |
| | 10. IRELAND, SOUTH - | 80 | 43 | 71·3 | 52·7 | 61·4 | 5 above | 136 | +44 | 0 | 0 | 1142 | +193 | 245 | - 54 |
| | —CHANNEL ISLANDS- | 70 | 46 | 66·7 | 53·9 | 59·9 | 2 above | 125 | +19 | 0 | 0 | 1102 | +369 | 81 | - 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 140.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH - | 1 | 2 | 5 less | 101 | - 8 | 21·5 | + 0·9 | 70 | +33 | 56 | +26 | 640 | + 80 | 31 | + 4 |
| | 1. SCOTLAND, EAST - | 0 | less than ½ | 5 less | 94 | + 8 | 15·0 | + 2·4 | 80 | +38 | 66 | +31 | 696 | + 80 | 34 | + 4 |
| | 2. ENGLAND, N.E. - - | 0 | — | 4 less | 85 | + 3 | 10·2 | 0·0 | 73 | +37 | 61 | +30 | 662 | + 65 | 33 | + 3 |
| | 3. ENGLAND, EAST - | 0 | — | 5 less | 77 | - 3 | 9·2 | - 0·8 | 68 | +22 | 59 | +18 | 864 | +132 | 41 | + 6 |
| | 4. MIDLAND COUNTIES | 0 | — | 5 less | 77 | - 1 | 11·6 | + 0·3 | 79 | +38 | 69 | +33 | 776 | +163 | 40 | + 9 |
| | 5. ENGLAND, SOUTH - | 0 | — | 4 less | 67 | - 8 | 9·9 | - 1·6 | 76 | +24 | 67 | +21 | 894 | +161 | 44 | + 8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST - | 1 | 2 | 6 less | 97 | + 5 | 22·4 | + 1·8 | 77 | +32 | 65 | +27 | 698 | + 59 | 34 | + 2 |
| | 7. ENGLAND, N.W. - | 0 | 1 | 5 less | 89 | + 5 | 14·9 | + 1·9 | 88 | +46 | 75 | +39 | 804* | +167 | 40 | + 9 |
| | 8. ENGLAND, S.W. - - | 1 | 1 | 4 less | 86 | + 2 | 18·9 | + 3·3 | 85 | +33 | 75 | +29 | 878 | +106 | 43 | + 5 |
| | 9. IRELAND, NORTH - | 1 | 5 | 1 less | 104 | + 6 | 16·7 | + 1·7 | 68 | +26 | 58 | +22 | 743 | +126 | 37 | + 7 |
| | 10. IRELAND, SOUTH - | 1 | 3 | 3 less | 89 | - 2 | 19·6 | + 3·0 | 66 | +21 | 57 | +18 | 827 | +123 | 41 | + 6 |
| | — CHANNEL ISLANDS- | 1 | 2 | 3 less | 82 | - 9 | 13·3 | 0·0 | 87 | +35 | 78 | +31 | 955 | +105 | 48 | + 5 |

*Bright Sunshine* —Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was again fine and dry in all parts of the United Kingdom until quite the close of the period, when rather heavy falls of rain were experienced over Ireland, and smaller amounts in some parts of Scotland.

*Temperature* continued high in all places, except over the more eastern and southern portions of England, where it was, as a rule, two or three degrees below the average. The highest of the maxima, which occurred on rather irregular dates, ranged from 85° in Scotland E., and 83° in England S.W., to 75° in England E., and 70° in the Channel Islands. During Wednesday the daily maxima at many of the English stations did not exceed 60°. The lowest of the minima, which were registered about the middle of the week, ranged from 34° in England N.E., E., and the Midland Counties, to 39° in Scotland E., and to 40° in Scotland W. and England S.W. On Thursday the grass thermometer at Hillington showed a reading of 28°.

*Rainfall* was less than the mean in all districts. In most parts of England there was no measurable quantity.

*Bright Sunshine* was again largely in excess of the ordinary amount, and in the more northern districts, as well as in the Channel Islands was far greater than that recorded during the preceding week.

*Barometer and Wind.*—The distribution of pressure was mostly of an anticyclonic character, the central areas being chiefly located over the United Kingdom. During the early part of the week the weather over our northern districts was affected by a large depression which lay over Scandinavia, while towards the close of the period, as the anticyclone broke up, shallow depressions began to appear over the west and north of our Islands. The prevailing winds were from the Northward (North-West—North-East).

207 | 90 Wy. & S., Ltd.
913 | 70 6 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 139 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head § | 62 | 42 | 54·7 | 45·0 | 49·5 | − 0·1 | 53 | 0 | 1 | 0·01 | − 0·45 | * | * | * | * |
| | Stornoway | 75 | 45 | 65·9 | 47·3 | 56·0 | + 4·3 | 98 | 0 | 1 | 0·40 | − 0·25 | 64·3 | +21·5 | 52 | +17 |
| | Wick § | 71 | 42 | 64·1 | 44·9 | 53·8 | + 2·1 | 83 | 0 | 1 | 0·02 | − 0·38 | * | * | * | * |
| | Lairg § | 84 | 40 | 77·9 | 47·2 | 61·6 | + 9·0 | 137 | 0 | 1 | 0·13 | − 0·39 | * | * | * | * |
| | Glencarron § | 79 | 44 | 71·1 | 48·6 | 59·1 | + 5·8 | 120 | 0 | 1 | 0·23 | − 0·97 | * | * | * | * |
| | Fort Augustus § | 81 | 43 | 71·4 | 47·8 | 58·8 | + 4·5 | 118 | 0 | 1 | 0·44 | − 0·06 | 72·9 | +42·1 | 59 | +34 |
| | Fort William § | 76 | 49 | 71·6 | 51·7 | 61·0 | + 6·7 | 133 | 0 | 1 | 0·27 | − 0·62 | 78·8 | +37·3 | 64 | +30 |
| 1. SCOTLAND E. | Nairn | 78 | 40 | 72·3 | 47·4 | 59·0 | + 4·6 | 119 | 0 | 1 | 0·11 | − 0·30 | * | * | * | * |
| | Aberdeen | 74 | 39 | 66·1 | 46·6 | 55·7 | + 2·0 | 96 | 0 | 0 | — | − 0·43 | 87·3 | +41·3 | 71 | +33 |
| | Braemar § | 76 | 39 | 72·8 | 43·3 | 57·0 | + 5·1 | 105 | 0 | 0 | — | − 0·54 | 86·8† | +44·0† | 71† | +35† |
| | Ochtertyre § | 85 | 40 | 78·9 | 46·6 | 61·6 | + 6·3 | 137 | 0 | 0 | — | − 0·63 | * | * | * | * |
| | Leith | 81 | 43 | 67·9 | 47·7 | 57·1 | + 1·6 | 106 | 0 | 0 | — | − 0·44 | * | * | * | * |
| | Marchmont § | 75 | 40 | 69·3 | 45·0 | 56·3 | + 2·7 | 100 | 0 | 0 | — | − 0·58 | 88·8 | +46·0 | 73 | +37 |
| 2. ENGLAND, N.E. | Alnwick Castle | 74 | 34 | 67·1 | 42·0 | 53·7 | + 0·2 | 82 | 0 | 0 | — | − 0·47 | * | * | * | * |
| | Durham | 80 | 34 | 70·9 | 41·0 | 54·9 | − 0·4 | 95 | 3 | 0 | — | − 0·47 | 81·9 | +41·9 | 69 | +35 |
| | Shields | 67 | 42 | 61·4 | 45·1 | 52·7 | − 1·5 | 75 | 0 | 0 | — | − 0·40 | * | * | * | * |
| | Scarborough ℳ | 72 | 39 | 62·6 | 45·0 | 53·2 | − 2·0 | 78 | 0 | 0 | — | − 0·48 | — | — | — | — |
| | York | | | | | | | | | | | | | | | |
| | Spurn Head | 64 | 45 | 59·3 | 47·7 | 53·1 | − 2·3 | 78 | 0 | 0 | — | − 0·40 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 76 | 34 | 68·7 | 43·6 | 55·3 | − 1·5 | 93 | 0 | 0 | — | − 0·51 | 68·2 | +21·2 | 59 | +18 |
| | Yarmouth | 60 | 44 | 58·7 | 47·7 | 52·8 | − 3·2 | 76 | 0 | 0 | — | − 0·44 | * | * | * | * |
| | Geldeston | 69 | 39 | 64·5 | 43·9 | 53·5 | − 2·8 | 81 | 0 | 0 | — | − 0·40 | 70·3 | +20·1 | 61 | +17 |
| | Cambridge | | | | | | | | | | | | | | | |
| | Felixstowe | 64 | 40 | 60·7 | 44·7 | 52·1 | − 4·1 | 71 | 0 | 0 | — | ? | 69·2 | ? | 60 | ? |
| | Rothamsted | 75 | 36 | 67·3 | 42·2 | 53·9 | − 2·9 | 83 | 0 | 0 | — | − 0·43 | 68·3 | +23·0 | 59 | +19 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 80 | 35 | 72·7 | 43·1 | 56·9 | 0·0 | 104 | 0 | 0 | — | − 0·52 | * | * | * | * |
| | Loughborough | 80 | 36 | 72·3 | 44·1 | 57·2 | − 0·9 | 106 | 0 | 0 | — | − 0·52 | * | * | * | * |
| | Stamford (Duddington) | 79 | 34 | 70·3 | 44·4 | 56·4 | − 0·8 | 101 | 0 | 0 | — | − 0·47 | * | * | * | * |
| | Cheadle ℳ | 76 | 41 | 68·2 | 46·2 | 56·4 | + 1·5 | 101 | 0 | 0 | — | − 0·68 | * | * | * | * |
| | Shirley (near Solihull) | 77 | 36 | 70·6 | 43·8 | 56·3 | − 0·6 | 100 | 0 | 0 | — | ? | * | * | * | * |
| | Churchstoke ℳ | 79 | 37 | 74·0 | 44·2 | 58·1 | + 2·9 | 113 | 0 | 0 | — | − 0·54 | 88·8 | +44·6 | 77 | +38 |
| | Hereford (Belmont) ℳ | 79 | 36 | 72·3 | 43·4 | 56·8 | − 0·7 | 104 | 0 | 0 | — | − 0·49 | * | * | * | * |
| | Cirencester | 81 | 37 | 72·0 | 45·4 | 57·8 | + 1·9 | 111 | 0 | 0 | — | − 0·53 | 89·7 | +44·1 | 78 | +38 |
| | Oxford | 79 | 40 | 71·1 | 45·4 | 57·4 | − 0·3 | 108 | 0 | 0 | — | − 0·50 | 75·8 | +30·5 | 66 | +26 |
| 5. ENGLAND, S. | London | 79 | 43 | 70·7 | 47·4 | 58·2 | − 0·9 | 113 | 0 | 0 | — | − 0·47 | 59·9† | +17·7† | 52† | +15† |
| | Cranley ℳ | 78 | 38 | 70·9 | 42·5 | 55·7 | − 2·6 | 96 | 0 | 0 | — | ? | * | * | * | * |
| | Dungeness | 64 | 40 | 60·1 | 45·7 | 52·4 | − 4·6 | 73 | 0 | 0 | — | − 0·37 | * | * | * | * |
| | Hastings (St. Leonards) | 64 | 44 | 61·0 | 46·6 | 53·3 | − 3·9 | 79 | 0 | 0 | — | − 0·40 | 74·6 | +20·5 | 65 | +18 |
| | Southampton | 79 | 43 | 73·1 | 47·4 | 59·4 | + 0·7 | 122 | 0 | 0 | — | − 0·44 | 87·1 | +37·3 | 76 | +31 |
| | Hurst Castle | 72 | 44 | 67·9 | 49·4 | 58·0 | + 0·1 | 112 | 0 | 0 | — | − 0·43 | * | * | * | * |
| | Shaftesbury ℳ | 73 | 43 | 69·2 | 49·7 | 58·8 | + 3·2 | 118 | 0 | 0 | — | − 0·50 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 75 | 41 | 70·6 | 48·8 | 58·9 | + 4·2 | 118 | 0 | 1 | 0·38 | − 0·61 | * | * | * | * |
| | Glasgow | 78 | 47 | 74·2 | 51·3 | 62·0 | + 7·0 | 140 | 0 | 1 | 0·01 | − 0·63 | 61·1 | +22·3 | 50 | +18 |
| | Glenlee § | 81 | 40 | 75·8 | 46·1 | 59·9 | + 5·4 | 125 | 0 | 1 | 0·09 | − 0·67 | * | * | * | * |
| | Douglas (Isle of Man) | 75 | 43 | 69·4 | 47·4 | 57·6 | + 2·9 | 109 | 0 | 1 | 0·22 | − 0·28 | 93·2 | +41·5 | 79 | +35 |
| 7. ENGLAND, N.W. | Stonyhurst | 78 | 41 | 72·5 | 48·5 | 59·7 | + 3·9 | 124 | 0 | 0 | — | − 0·77 | 95·7 | +50·6 | 81 | +42 |
| | Blackpool ℳ | 77 | 41 | 70·4 | 46·9 | 57·9 | + 1·9 | 111 | 0 | 0 | — | − 0·50 | 88·7 | +43·5 | 75 | +37 |
| | Manchester (Prestwich) | 80 | 41 | 72·5 | 47·6 | 59·2 | + 3·1 | 120 | 0 | 0 | — | − 0·68 | 86·5 | ? | 73 | ? |
| | Liverpool Obsy. (Bidston) | 80 | 47 | 67·3 | 52·4 | 59·3 | + 2·6 | 121 | 0 | 0 | — | − 0·48 | 81·3 | ? | 70 | ? |
| | Llandudno ℳ | 74 | 48 | 68·5 | 51·6 | 59·5 | + 2·8 | 123 | 0 | 1 | 0·26 | − 0·19 | 88·7 | +43·5 | 76 | +37 |
| | Holyhead | 65 | 50 | 63·0 | 51·3 | 53·7 | + 0·3 | 103 | 0 | 1 | 0·19 | − 0·26 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 83 | 40 | 78·3 | 45·0 | 60·5 | + 4·1 | 130 | 0 | 1 | 0·02 | − 0·66 | * | * | * | * |
| | Pembroke | 74 | 50 | 66·1 | 53·9 | 59·6 | + 4·1 | 123 | 0 | 1 | 0.33 | − 0·12 | 90·9 | +36·8 | 79 | +32 |
| | Clifton | 81 | 45 | 74·4 | 52·1 | 62·5 | + 5·8 | 144 | 0 | 0 | — | − 0·52 | * | * | * | * |
| | Arlington (N. Devon) | 75 | 43 | 71·3 | 47·1 | 58·4 | + 3·5 | 115 | 0 | 1 | 0·09 | − 0·61 | * | * | * | * |
| | Cullompton ℳ | 80 | 40 | 73·4 | 45·6 | 58·5 | + 1·3 | 116 | 0 | 0 | — | − 0·52 | 81·5 | +34·5 | 71 | +30 |
| | Falmouth | 72 | 51 | 67·5 | 53·9 | 60·2 | + 3·5 | 127 | 0 | 1 | 0·34 | − 0·24 | 86·6 | +32·8 | 77 | +29 |
| | Plymouth | 74 | 44 | 67·4 | 50·7 | 58·5 | + 0·1 | 116 | 0 | 2 | 0·09 | − 0·36 | 81·9 | +32·9 | 72 | +28 |
| | Prawle Point | 71 | 46 | 65·3 | 50·4 | 57·3 | + 1·8 | 107 | 0 | 0 | — | − 0·38 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 70 | 49 | 63·0 | 53·1 | 57·7 | + 3·2 | 110 | 0 | 1 | 0·32 | ? | * | * | * | * |
| | Londonderry | 81 | 49 | 73·9 | 52·1 | 62·2 | + 5·9 | 141 | 0 | 1 | 0·46 | − 0·12 | * | * | * | * |
| | Edenfel (Omagh) | 81 | 44 | 74·1 | 49·1 | 60·7 | + 6·4 | 131 | 0 | 1 | 0·45 | − 0·13 | * | * | * | * |
| | Belmullet | 68 | 50 | 63·9 | 52·1 | 57·6 | + 1·8 | 109 | 0 | 2 | 0·74 | + 0·06 | * | * | * | * |
| | Markree Castle | 77 | 44 | 69·4 | 49·6 | 58·8 | + 4·4 | 118 | 0 | 1 | 0·44 | − 0·24 | 66·7 | +25·8 | 57 | +22 |
| | Armagh | 77 | 46 | 71·9 | 48·7 | 59·5 | + 4·1 | 123 | 0 | 1 | 0·48 | − 0·05 | 69·3 | +27·3 | 59 | +24 |
| | Donaghadee | 70 | 48 | 64·6 | 50·6 | 57·1 | + 1·9 | 106 | 0 | 1 | 0·42 | − 0 06 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND S. | Dublin | 74 | 49 | 70·6 | 53·8 | 61·6 | + 4·2 | 137 | 0 | 1 | 0·09 | − 0·35 | 70·9 | +24·3 | 61 | +21 |
| | Parsonstown | 79 | 43 | 73·3 | 50·3 | 61·0 | + 5·0 | 133 | 0 | 1 | 0·54 | − 0·01 | 50·3 | + 9·6 | 43 | + 8 |
| | Kilkenny | 79 | 45 | 74·0 | 50·1 | 61·3 | + 5·0 | 135 | 0 | 1 | 0·10 | − 0·42 | * | * | * | * |
| | Roche's Point | 73 | 55 | 69·0 | 55·3 | 61·7 | + 4·3 | 138 | 0 | 1 | 0·22 | − 0·52 | * | * | * | * |
| | Valencia | 75 | 48 | 67·0 | 53·1 | 59·6 | + 3·0 | 123 | 0 | 1 | 0·62 | − 0·16 | 78·1 | +30·2 | 68 | +26 |
| | Killarney | 80 | 46 | 73.5 | 51·2 | 61·6 | + 5·9 | 137 | 0 | 1 | 0·46 | ? | * | * | * | * |
| | Foynes | 79 | 51 | 71·7 | 54·9 | 62·7 | + 6·7 | 145 | 0 | 1 | 0·32 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 68 | 55 | 66·6 | 56·6 | 61·3 | + 4·4 | 135 | 0 | 1 | 0·33 | − 0·09 | 74·0 | ? | 65 | ? |
| | Jersey | 70 | 46 | 66·7 | 51·1 | 58·4 | − 0·2 | 115 | 0 | 0 | — | − 0·44 | 97·1 | +39·4 | 87 | +35 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

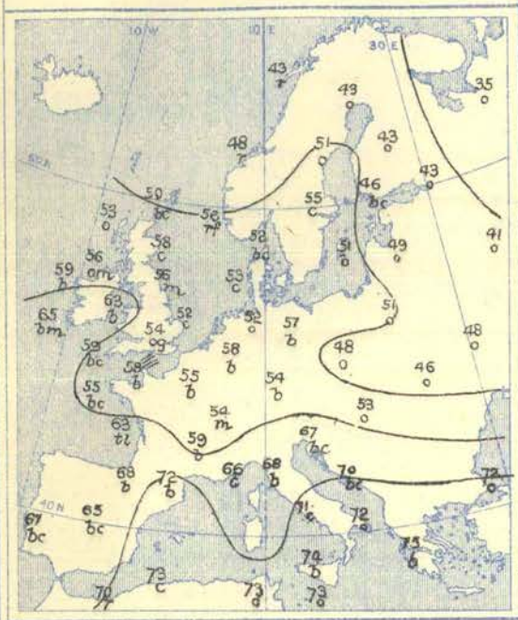
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 11th June.

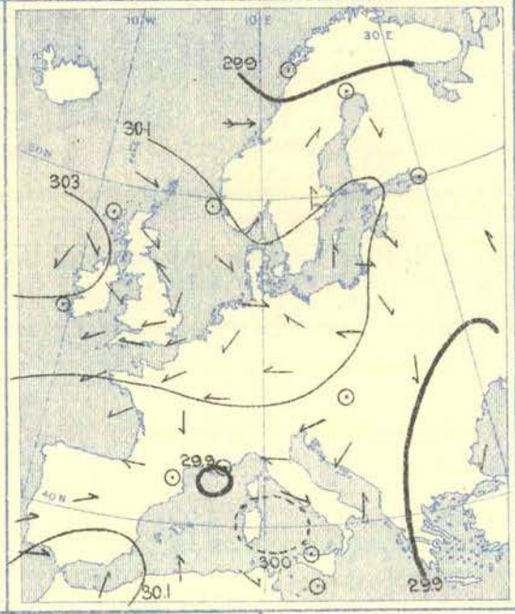
### Temperature and Weather.

8 a.m.

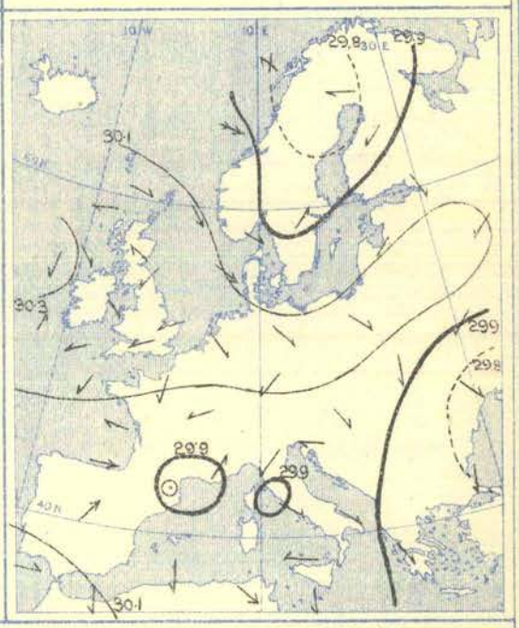


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair or fine over western and southern Europe as a whole, but dull and misty over central England. Thunderstorms reported at Rochefort and La Coubre. Dull in Scandinavia, Russia, eastern Germany, and Austria, with rain in the west of Norway. Rain falling later at several of the Scandinavian stations; thunderstorms occurring in the south of France; heavy rain reported at Toulouse and Turin.

*Temperature* risen in our Islands and the northern parts of the Continent, but changed irregularly elsewhere. Morning readings highest, 81° at La Calle and Sfax, and 75° at Barcelona, Athens, Patras and Aumale; above 65° in many parts of southern Europe, as well as at Leith, and just touching that point on the south coasts of Ireland. Lowest, 35° at Archangel, 41° at Moscow, and 43° at Bodö, Haparanda and Kuopio. Rising during day to 70° and upwards in several parts of the United Kingdom, to 76° at Loughborough, and to 79° at Parsonstown. Exceeding 80° in the west of France and many parts of southern Europe, and reaching 88° at Palermo and 90° at Toulouse.

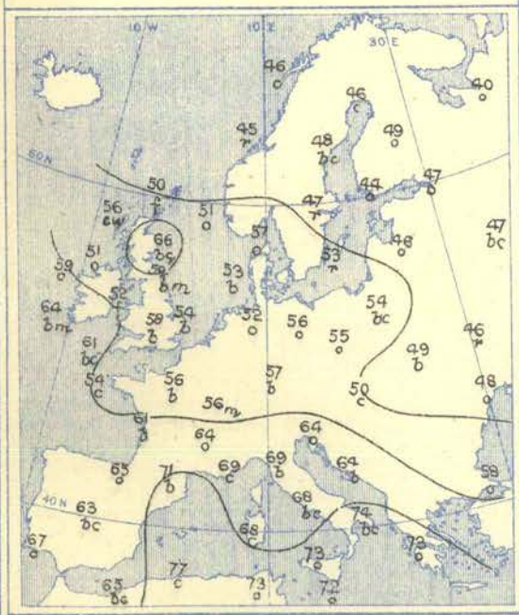
*Wind* Easterly or North-Easterly over the greater part of England, Ireland, France, and northern Italy; light or moderate in force generally, but strong at Jersey and Belfort. Light from the North-Westward over the north and east of Scotland, the North Sea, the Netherlands and Germany; South-Westerly or Southerly in Denmark and the south of Sweden. Westerly or South-Westerly over the Spanish Peninsula and southern Italy. Strong North-Westerly winds setting in later on the eastern shores of the North Sea; Westerly gale blowing at Christiansund all day.

*Barometer* highest, 30·3 ins. and upwards over the northern and central parts of Ireland; 30·1 ins. and upwards in an anticyclone embracing the greater part of north-western and central Europe, and also in another system over Morocco and the south of Spain. Lowest, 29·9 ins. and less in two large shallow areas—one over the north of Norway, and the other over south-eastern Europe generally. Low pressure area in far north subsequently spreading southwards; barometer falling rather decidedly over the northern parts of the Continent.

## Monday, 12th June.

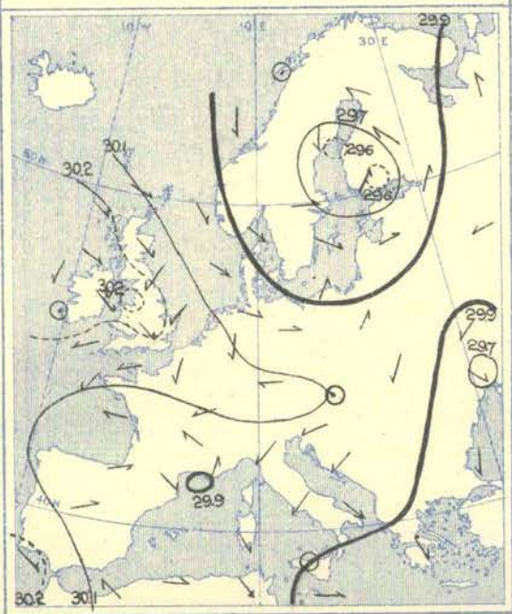
### Temperature and Weather.

8 a.m.

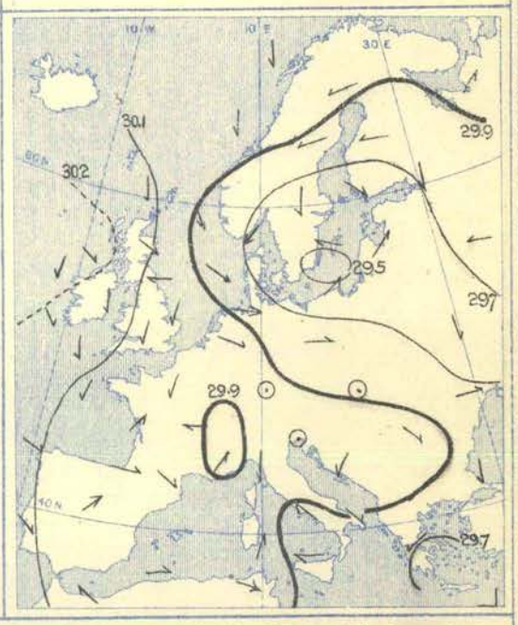


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair or fine over western Europe as a whole, but dull and misty over the central parts of England, and foggy at Sumburgh Head, Holyhead and Parsonstown. Rainy in the south of Sweden, and also at Christiansund, Swinemünde and Kiev; dull in most of the eastern and central countries. Sky clearing later over the central parts of our Islands; no important change occurring elsewhere, but thunder heard at Perpignan.

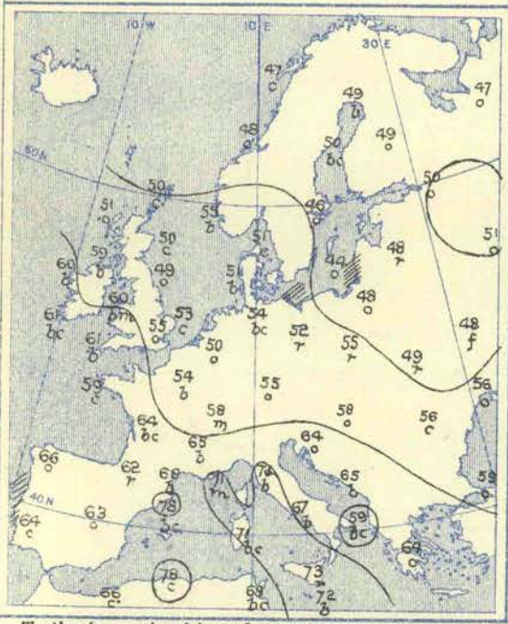
*Temperature* changed rather irregularly. Morning readings highest, 78° at La Calle, 77° at Algiers, and 74° at Barcelona and Brindisi; above 65° in most parts of southern Europe; above 60° in many parts of our Islands, and touching 66° at Aberdeen. Lowest, 40° at Archangel, 42° at Kuopio, 44° at Hangö and Helsingfors. Rising during day to 75° and upwards in many parts of Great Britain, and to 81° at Leith. Exceeding 80° also at several stations in southern Europe, and reaching 90° at Lisbon.

*Wind* light from the Northward in Ireland, and from the North-Eastward in the south of England and the north of France; Westerly (South-West to North-West) over the Spanish Peninsula and the extreme south of France. Moderate from the North-Westward in the north of Scotland, and fresh to strong from the same quarter on the eastern shores of the North Sea; Westerly in Germany; South-Westerly over the Baltic Provinces and the Gulf of Finland; Easterly or South-Easterly in Lapland; calm or variable in Austria and the south of Russia; North-Easterly over the northern parts of Italy and the Adriatic.

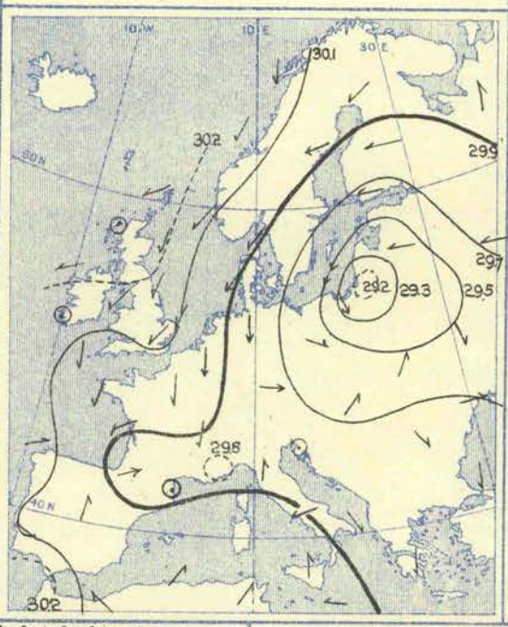
*Barometer* highest, 30·2 ins. and upwards in an anticyclone lying over Ireland, the west of Scotland and the northern and central parts of England, and also in another system off the south-west of Spain. Lowest, 29·7 ins. and less in two depressions—one lying over the Gulfs of Bothnia and Finland, and the other over the extreme south of Russia. Depression over northern Europe subsequently moving southwards to the Baltic, and barometer rising again in Norway and Scotland.

## Tuesday, 13th June.

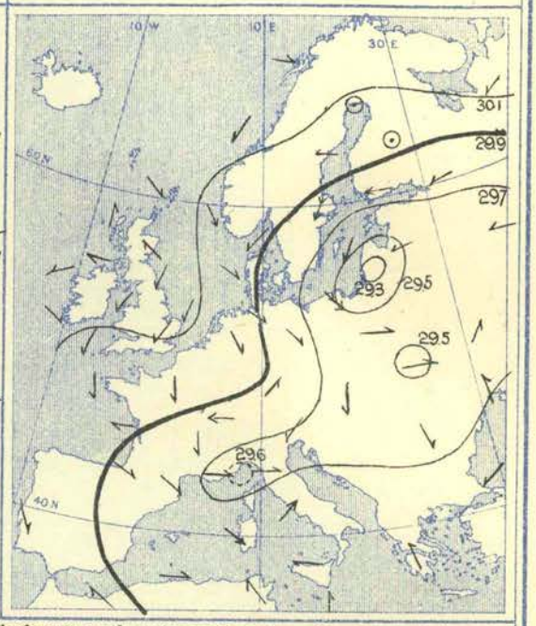
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair or fine over western Europe as a whole, but cloudy or dull in many parts of Great Britain. Rainy over the Baltic provinces and many parts of Germany and Austria, dull over Russia generally and the south of Sweden. Dull also over the Spanish Peninsula and the south-west of France, with rain at Biarritz. Sky clearing later over Great Britain. Heavy rain falling in Austria and northern Italy and thunderstorm occurring in the south of France.

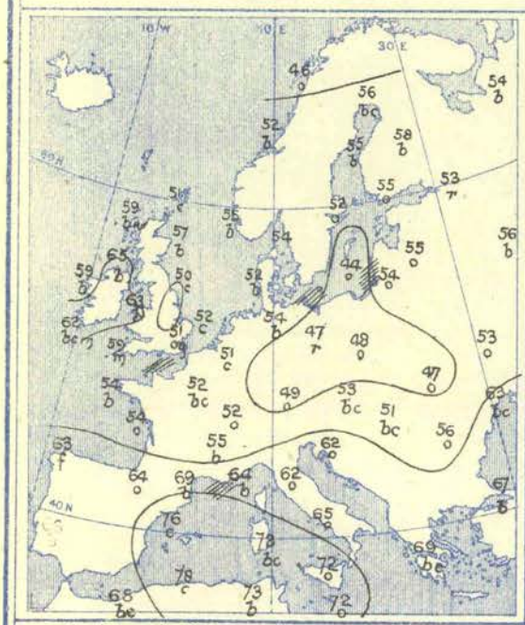
*Temperature* fallen in our Islands and also in Denmark, Germany and the south of Sweden, changed rather irregularly elsewhere. Morning readings highest, 81° at Sfax, 78° at Barcelona and Algiers, and 75° at La Calle; above 70° at most of the Mediterranean stations. Lowest, 44° at Wisby and Helsingfors, 45° at Hangö, and 46° at Stockholm; lowest in our Islands, 49° at Shields. Remaining below 60° all day on several parts of our own northern, eastern and south-eastern coasts, and below 70° in most other parts of the United Kingdom. Exceeding 75° in France, and exceeding 80° in many parts of southern Europe, the highest reading of all being 84° at Cette, Croisette and Cagliari.

*Wind* North-Easterly or Northerly over north-western and northern Europe as a whole, and strong in force over Sweden, Denmark and the Baltic, with a gale at Stockholm and Wisby, Westerly or South-Westerly over Austria and the southern parts of Germany and Russia. Variable in Italy; Westerly or South-Westerly over the Spanish Peninsula and the extreme south of France, Southerly airs appearing later in the north of Scotland, no decided change occurring elsewhere.

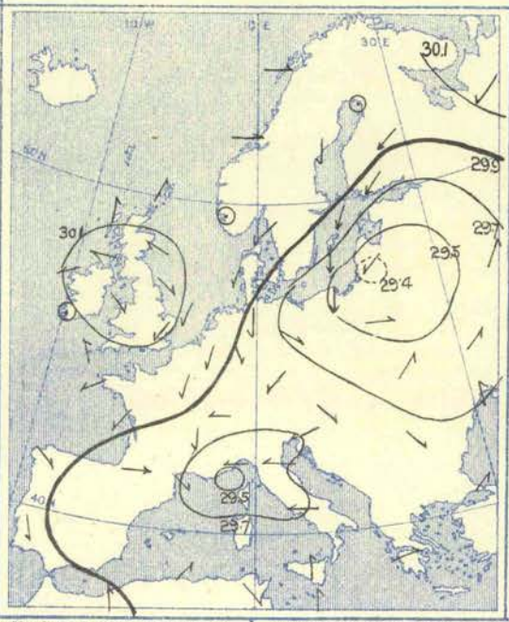
*Barometer* highest, 30·2 ins. and upwards over Scotland and the north of Ireland; 30·0 ins. and upwards in an anticyclone covering our Islands and the extreme western parts of the Continent generally. Lowest, 29·2 ins. and less in a well-marked depression with its centre over the Baltic provinces, 29·8 ins. and less in a small disturbance over the extreme south of France. No important change occurring later.

## Wednesday, 14th June.

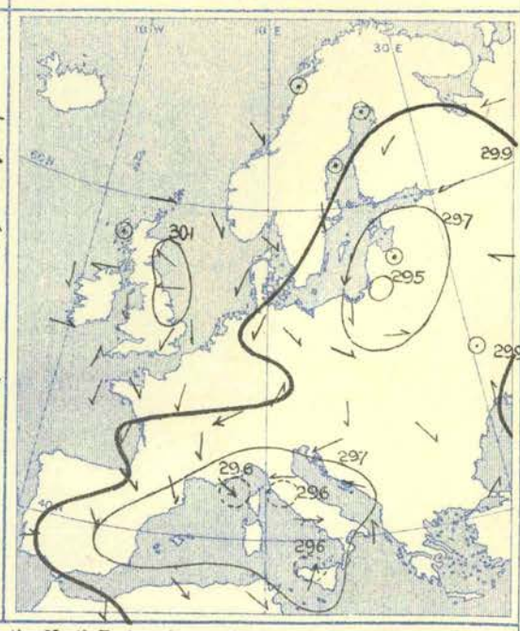
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over western and northern Europe generally, but cloudy or dull in the eastern and central parts of England. Dull also over Germany, western Russia and the Baltic, with rain in several places; fine in Austria, but dull in Italy, with rain at Pesaro. Sky clearing later over England, but rain continuing to fall in Germany, and amount very large (3·6 ins.) at Munich; considerable quantities falling also at Barcelona and Florence. Thunderstorms occurring at Nice and lightning seen at Lyons.

*Temperature* risen in Scotland and the northern and eastern parts of the Continent, but fallen elsewhere. Morning readings highest, 78° at Algiers, 77° at Sfax, and 76° at Barcelona; above 70° at several of the Mediterranean stations, and above 60° in many parts of Ireland and Scotland. Lowest, (1) 46° at Bodö; (2) 47° at Berlin and Lemberg and 48° at Breslau; (3) 49° at Loughborough and Oxford. Daily maxima below 60° on the east and south-east coasts of England, but thermometer exceeding 70° in several parts of Ireland and the north of Scotland; exceeding 75° in the west of France and some parts of southern Europe, and reaching 88° at Palermo. Ground frost occurring over central England at night.

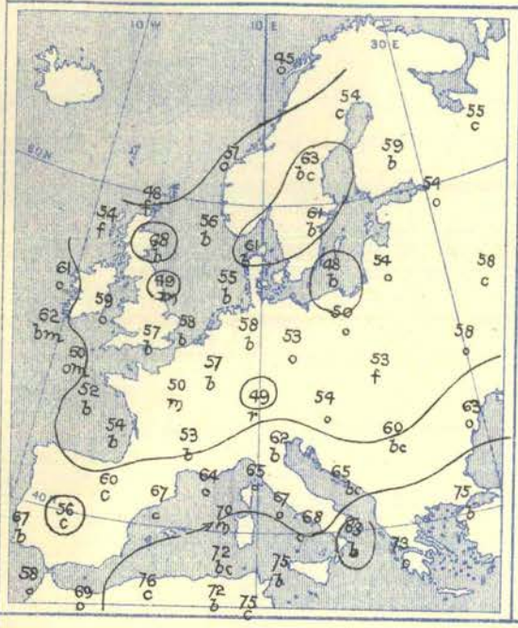
*Wind* light to moderate from the North-Eastward over the central and southern parts of England and the north of France; light from the South-Eastward on our western coasts, and from the Southward in the north of Scotland. Northerly or North-Easterly over northern Europe generally, and strong in force at the Baltic stations; North-Westerly over south Germany and Austria; Southerly over the central and southern parts of Russia. Rather variable in Italy, but Westerly or North-Westerly over the Spanish Peninsula and the extreme south of France.

*Barometer* highest, 30·1 ins. and upwards in an anticyclone covering the greater part of our Islands, and also in another system over the extreme northern parts of Russia and Scandinavia. Lowest, 29·4 ins. and less in a depression over the Baltic provinces; 29·5 ins. and less in another disturbance off the extreme south of France. No important change occurring over western Europe during day.

## Thursday, 15th June.

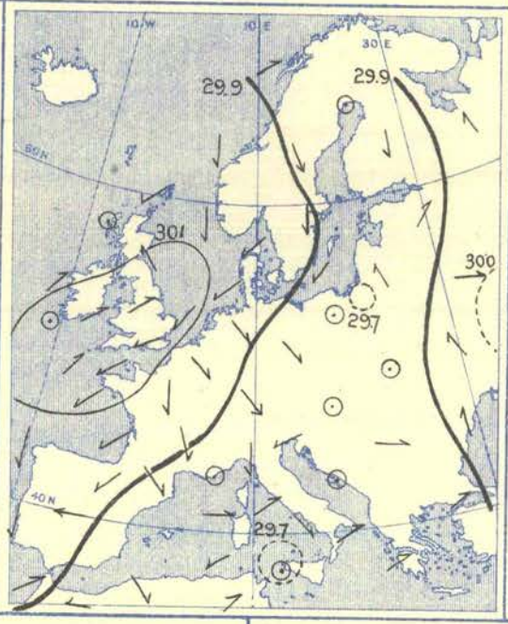
### Temperature and Weather.

8 a.m.

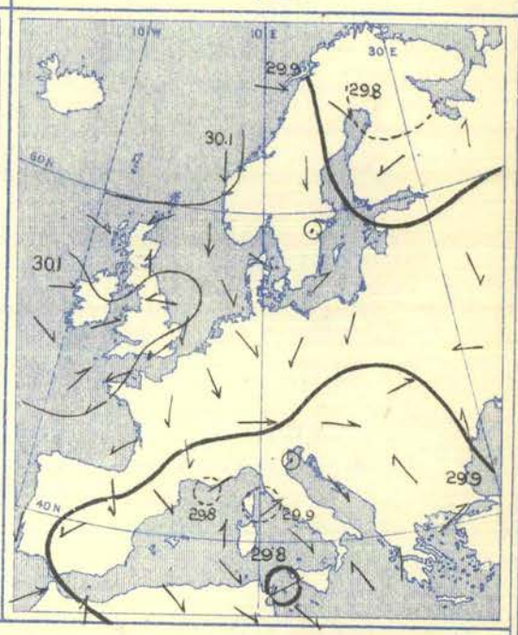


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over western and northern Europe generally, but dull in the west of Norway, and foggy in the Shetlands and Hebrides. Cloudy or dull over the central and southern countries, with heavy rain in south Germany. No important change occurring during day, but thunderstorm reported at Nice in morning.

*Temperature* risen in most countries, but fallen in France, and also on our own extreme north and north-west coasts. Morning readings highest, 83° at Brindisi, 76° at Algiers, and 75° at Palermo and Sfax; above 65° at most of the Mediterranean stations, and also in the north-east of Scotland. Lowest, (1) 45° at Bodö, and 48° at Wisby; (2) 48° at Sumburg Head, and 49° at Shields; (3) 49° at Munich, and 50° at Paris. Rising during day to between 70° and 75° in many parts of our Islands and France, and to 78° at Nairn. Exceeding 80° over southern Europe, and reaching 90° at Brindisi.

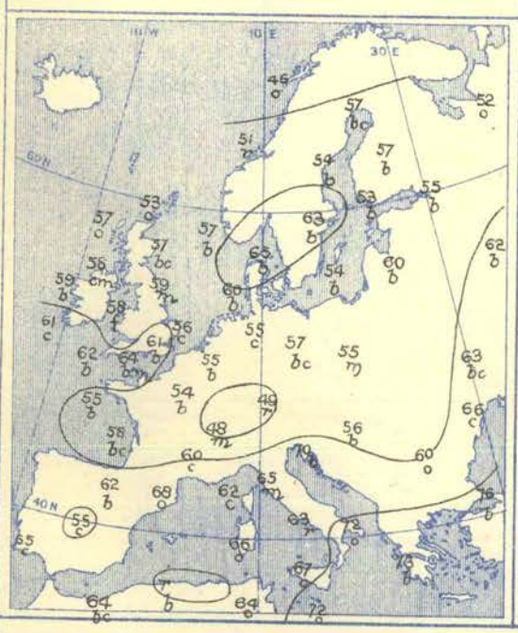
*Wind* light to moderate from the Northward or North-Eastward over the south of England, and the western parts of the Continent generally; rather variable, but chiefly Southerly in the west and north of our Islands. Westerly or South-Westerly over eastern Germany and Austria; Southerly or South-Easterly in the south of Russia; variable over northern Russia. Northerly or North-Westerly at most of the Italian stations; variable in the south of France. No decided change occurring over western Europe later.

*Barometer* highest, 30·1 ins. and upwards in an anticyclone covering the whole of Ireland, England, and the north of France; 30·0 ins. and upwards in another system over central Russia. Lowest, 29.8 ins. and less in three shallow depressions, one lying over the north of Scandinavia, another over eastern Germany and the north-west of Russia, and the third over Austria, Italy, and the south-east of France. No decided change reported later.

## Friday, 16th June.

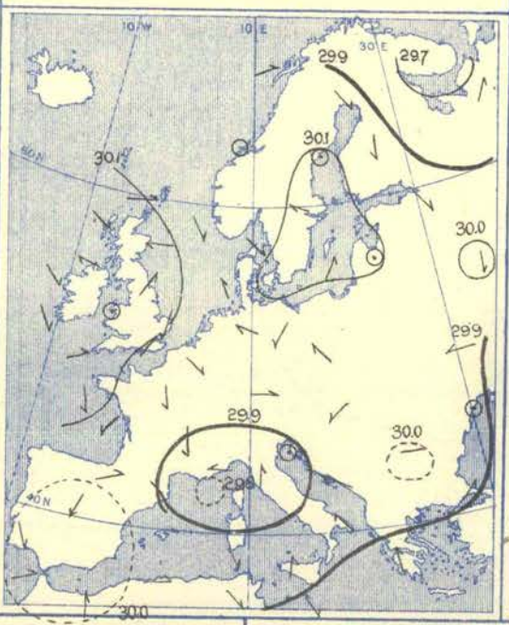
### Temperature and Weather.

8 a.m.

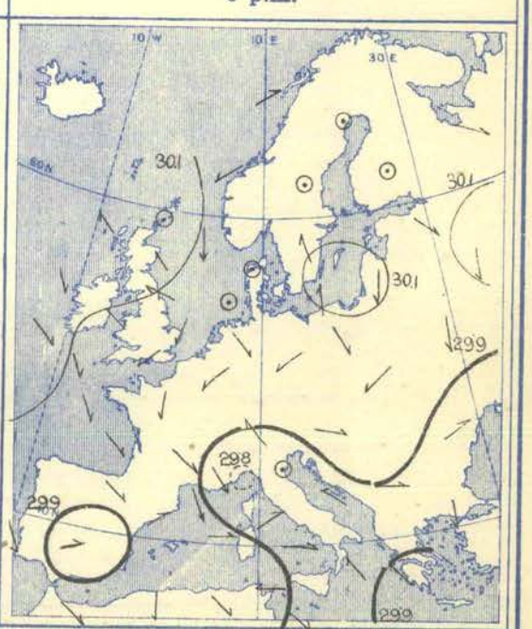


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over western and northern Europe generally, but dull in the north of Scotland, and the west of Norway, with rain at Christiansund. Cloudy or dull in many parts of the central and southern countries, with rain at Munich and Naples. A little rain falling later at some of the German and eastern French stations, and also at Herlösand and Christiansund, but weather in our Islands remaining very dry. Thunderstorms occurring over the southern parts of France; rain falling in Italy and Austria.

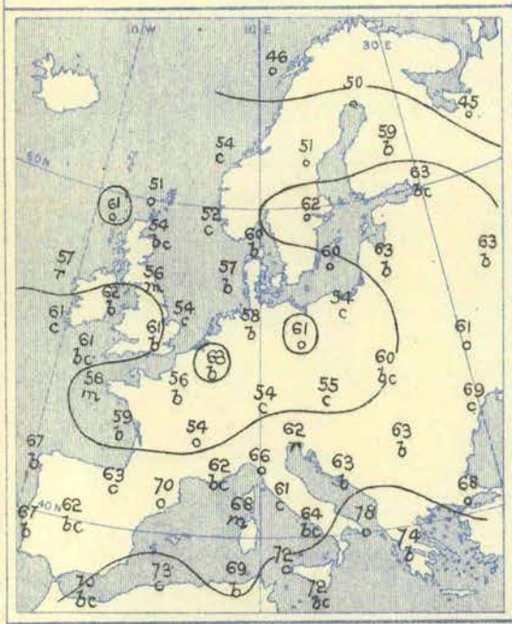
*Temperature* risen in most places. Morning readings highest, 76° at Constantinople, 73° at Athens and Patras, and 72° at Malta and Algiers; above 65° over southern Europe generally, and above 60° in many parts of our Islands, as well as in the south of Sweden. Lowest, (1) 46° at Bodö, and 51° at Christiansund; (2) 48° at Belfort, and 49° at Munich. Rising during day to 70° and upwards in many parts of the United Kingdom and France, and to 77° in London, and Perpignan. Exceeding 80° over Spain and southern Italy, and reaching 84° at Brindisi and Cagliari.

*Wind* light from the Northward (North-East to North-West) over northern and north-western Europe as a whole, but Southerly (South-East to South-West) over Denmark and the south of Sweden. Variable over Austria and the south of Russia; chiefly Easterly (South-East to North-East) over Italy; North-Easterly in Spain. Subsequently shifting to the Eastward or South-Eastward on our own northern coasts, no important change occurring elsewhere.

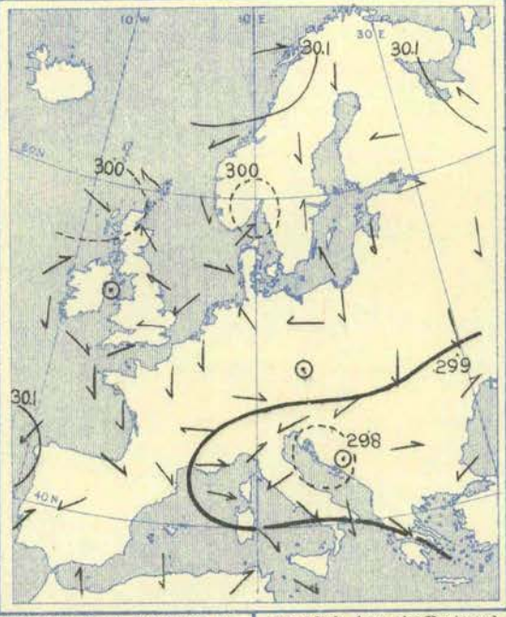
*Barometer* highest, 30·1 ins. and upwards, in an anticyclone lying over nearly the whole of the United Kingdom, and also in two other systems, lying respectively over the Gulf of Bothnia and over central Russia. Lowest, 29·8 ins. and less in a shallow depression over northern Russia; 29·9 ins. and less in another system over the south of France and the northern parts of Italy and the Adriatic. Slight fall taking place over our Islands later, and anticyclone beginning to break up.

## Saturday, 17th June.

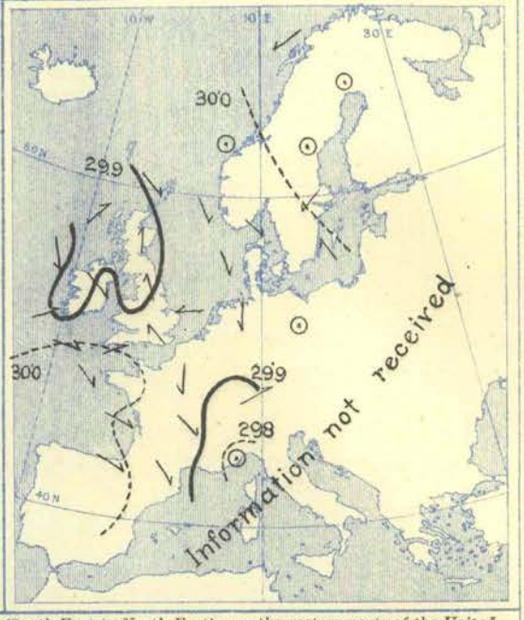
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.




*Weather* in morning, fine over the greater part of our Islands and the Continent, but foggy at some of the English Channel stations, and dull on our own extreme north and north-west coasts, with rain at Belmullet. Dull also in many parts of Sweden, north Germany, and Italy; rain falling at Trieste. Considerable quantities of rain falling later in Ireland, and smaller amounts in the west and north of Scotland.

*Temperature* risen in most parts of England, and central and southern Europe, but fallen elsewhere. Morning readings highest, 78° at Brindisi, 74° at Patras, and 73° at Algiers; above 65° at most of the Mediterranean and Spanish coast stations, as well as at some places in the west and south-west of England; above 60° over Russia and the south of Sweden. Lowest, 45° at Archangel, 46° at Bodö, 50° at Uleaborg, and 51° at Hernösand and Sumburgh Head. Rising during day to 75° and upwards in many parts of Great Britain, and to 80° at Loughborough and Liverpool. Reaching 77° at Brussels and Perpignan, and 80° at Lisbon.

*Wind* light from the Eastward, (South-East to North-East) over the eastern parts of the United Kingdom; Southerly in the north of Scotland; Westerly to Northerly over Ireland and the south-west of England. Northerly or North-Westerly over France and the greater part of Italy; variable over the Spanish Peninsula, and also over central Europe; Southerly in the south of Sweden; Northerly in the south of Norway and over the Gulf of Bothia. Cyclonic circulation of light breezes appearing later over Ireland; no important change occurring elsewhere.

*Barometer* highest, 30·1 ins. and upwards in three areas—one lying over the extreme north of Russia, another over the north of Norway, and the third off the north-west of Spain. Lowest, 29·8 ins. and less in a shallow depression over the northern part of the Adriatic; 30·0 ins. and less in two other systems, one lying over the north of Scotland and the other over the south of Scandinavia. Further shallow depressions forming later over Ireland and the northern parts of Great Britain, and barometer falling over western Europe generally.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟶⟶ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During nearly the whole of this week the weather over western Europe remained under the influence of large anticyclonic systems, the central areas of which lay for the most part over the United Kingdom. The weather was consequently fair and dry, no rain falling in our Islands until the close of the period, and then only in the most western districts.

Over the northern countries the conditions were affected in the earlier part of the week by a large depression of increasing intensity which moved southwards over Scandinavia and the Baltic, but which ultimately dispersed over western Russia. This disturbance occasioned cold rainy weather in many parts of northern Europe, with northerly gales at some of the Scandinavian and Baltic stations; the polar current extending over Great Britain on the 13th and occasioning a considerable, but temporary, decrease in temperature in this country. Over southern Europe the weather was influenced at times by complex depressions which formed over Italy and the Mediterranean; the disturbances producing considerable falls of rain in places, with local thunderstorms. At Munich the total rainfall for the 48 hours ending with the morning of the 16th was as much as 5·6 ins.

Towards the close of the week the western anticyclone gradually broke up, and on the 17th shallow depressions began to appear ever the west and north of our Islands, the disturbances producing considerable falls of rain in Ireland, and smaller quantities in the west and north of Scotland.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 140.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 64·3 | ? | 51 | ? | WATERGATE (Emsworth) | 85·9 | ? | 75 | ? |
| STRATHPEFFER SPA | 70·0 | +29·2 | 56 | +23 | BRIGHTON | 76·9 | +25·4 | 67 | +22 |
| EDINBURGH | 58·5 | +21·2 | 48 | +17 | BOGNOR | 81·3* | ? | 71* | ? |
| MORPETH | 79·6 | ? | 67 | ? | WORTHING | 86·0 | ? | 75 | ? |
| NEWCASTLE-ON-TYNE | 57·5 | ? | 48 | ? | EASTBOURNE | 72·1 | +21·0 | 63 | +17 |
| OSWALDKIRK (Yorkshire) | 71·2 | +32·4 | 60 | +27 | VENTNOR HOSPITAL | 75·3 | ? | 66 | ? |
| HOLLESLEY BAY | 63·9 | ? | 56 | ? | SOUTHPORT | 91·4 | ? | 77 | ? |
| SHEFFIELD | 68·6 | ? | 59 | ? | COLWYN BAY | 93·3 | ? | 80 | ? |
| WORKSOP | 78·0 | +40·0 | 67 | +34 | ABERDOVEY | 79·1* | ? | 68* | ? |
| THURCASTON (Leicestershire) | 74·4 | +33·8 | 64 | +29 | TENBY | 93·9 | +39·9 | 82 | +35 |
| MARGATE | 52·7 | ? | 46 | ? | NEWQUAY | 82·0 | +29·1 | 73 | +26 |
| WESTBOURNE (Emsworth) | 86·3* | +36·3 | 76* | +31 | TORQUAY | 80·3* | +25·6 | 71 | +22 |
| | | | | | GUERNSEY | 90·8* | +31·5 | 81* | +27 |

* The values at Westbourne, Bognor, Aberdovey, Torquay, and Guernsey are obtained by Jordan's Photographic Recorder.

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

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VOL. XVI. NO. 25.] *Third Series.* WEEK ENDING SATURDAY, JUNE 24TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 146.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 70 | 43 | 60·9 | 50·2 | 55·2 | 2 above | 92 | +23 | 0 | − 1 | 673 | + 85 | 617 | − 5 |
| | 1. SCOTLAND, EAST | 71 | 42 | 62·4 | 50·3 | 55·9 | 1 above | 97 | +14 | 0 | 0 | 778 | + 37 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 76 | 47 | 63·8 | 51·6 | 57·3 | 1 above | 107 | +18 | 0 | 0 | 879 | +136 | 456 | − 93 |
| | 3. ENGLAND, EAST | 77 | 46 | 65·7 | 52·9 | 58·9 | 1 above | 118 | +16 | 0 | 0 | 1051 | +121 | 421 | −196 |
| | 4. MIDLAND COUNTIES | 75 | 38 | 66·3 | 51·4 | 58·3 | 1 above | 114 | +12 | 0 | 0 | 1087 | +117 | 478 | −141 |
| | 5. ENGLAND SOUTH | 79 | 46 | 67·4 | 53·7 | 60·1 | 1 above | 127 | +18 | 0 | 0 | 1226 | +198 | 294 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 71 | 42 | 61·6 | 51·1 | 56·0 | 0 (average) | 98 | +10 | 0 | 0 | 869 | + 67 | 413 | − 49 |
| | 7. ENGLAND, N.W. | 73 | 45 | 64·6 | 53·0 | 58·4 | 1 above | 115 | +18 | 0 | 0 | 1008 | +165 | 313 | −146 |
| | 8. ENGLAND, S.W. | 75 | 41 | 65·0 | 52·1 | 58·1 | 1 above | 113 | +10 | 0 | 0 | 1209 | +208 | 240 | −121 |
| | 9. IRELAND, NORTH | 72 | 39 | 61·0 | 48·8 | 54·5 | 2 below | 88 | − 4 | 0 | 0 | 975 | + 86 | 323 | − 72 |
| | 10. IRELAND, SOUTH | 71 | 39 | 61·9 | 49·7 | 55·3 | 2 below | 93 | − 7 | 0 | 0 | 1235 | +186 | 245 | − 54 |
| | —CHANNEL ISLANDS | 67 | 49 | 63·8 | 55·1 | 59·1 | 0 (average) | 120 | +11 | 0 | 0 | 1522 | +380 | 81 | − 67 |

### Rainfall.

| | DISTRICTS. (See p. 146.) | For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 6 | 6 | 0 (average) | 107 | − 6 | 22·1 | + 0·9 |
| | 1. SCOTLAND, EAST | 5 | 5 | 0 (average) | 99 | + 9 | 15·5 | + 2·4 |
| | 2. ENGLAND, N.E. | 5 | 8 | 4 more | 90 | + 5 | 11·0 | + 0·3 |
| | 3. ENGLAND, EAST | 5 | 5 | 1 less | 82 | − 1 | 9·7 | − 0·8 |
| | 4. MIDLAND COUNTIES | 5 | 9 | 4 more | 82 | + 1 | 12·5 | + 0·7 |
| | 5. ENGLAND, SOUTH | 4 | 5 | 1 more | 71 | − 7 | 10·4 | − 1·5 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 6 | 7 | 0 (average) | 103 | + 8 | 23·1 | + 1·9 |
| | 7. ENGLAND, N.W. | 5 | 11 | 6 more | 94 | + 7 | 16·0 | + 2·5 |
| | 8. ENGLAND, S.W. | 3 | 8 | 3 more | 89 | + 1 | 19·7 | + 3·6 |
| | 9. IRELAND, NORTH | 4 | 5 | 1 less | 108 | + 7 | 17·2 | + 1·7 |
| | 10. IRELAND, SOUTH | 3 | 7 | 1 more | 92 | − 2 | 20·3 | + 3·1 |
| | — CHANNEL ISLANDS | 4 | 8 | 4 more | 86 | − 9 | 14·1 | + 0·4 |

### Bright Sunshine.

| | DISTRICTS. (See p. 146.) | For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 16 | −26 | 13 | −21 | 656 | + 55 | 29 | + 2 |
| | 1. SCOTLAND, EAST | 15 | −27 | 12 | −22 | 711 | + 54 | 33 | + 2 |
| | 2. ENGLAND, N.E. | 20 | −17 | 17 | −14 | 682 | + 48 | 32 | + 2 |
| | 3. ENGLAND, EAST | 32 | −17 | 28 | −15 | 896 | +115 | 40 | + 5 |
| | 4. MIDLAND COUNTIES | 26 | −15 | 22 | −13 | 802 | +148 | 39 | + 7 |
| | 5. ENGLAND, SOUTH | 34 | −15 | 30 | −13 | 928 | +145 | 43 | + 7 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 23 | −22 | 19 | −19 | 721 | + 36 | 34 | + 2 |
| | 7. ENGLAND, N.W. | 31 | −15 | 25 | −13 | 835 | +152 | 39 | + 7 |
| | 8. ENGLAND, S.W. | 44 | − 8 | 39 | − 7 | 922 | + 98 | 43 | + 5 |
| | 9. IRELAND, NORTH | 27 | −15 | 23 | −12 | 770 | +111 | 36 | + 5 |
| | 10. IRELAND, SOUTH | 28 | −16 | 24 | −14 | 855 | +106 | 40 | + 5 |
| | — CHANNEL ISLANDS | 47 | − 8 | 42 | − 7 | 1002 | + 97 | 48 | + 4 |

*Bright Sunshine* —Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was generally cloudy or dull, with rather frequent, and in some places considerable, falls of rain. Thunder and lightning were experienced at times in several parts of the Kingdom.

*Temperature* was slightly above the mean in most districts, but just equalled it in Scotland W. and the Channel Islands, and was rather below the normal in Ireland. The highest of the maxima were recorded on somewhat irregular dates, and ranged from 79° in England S., 77° in England E., and 76° in England N.E., to 70° in Scotland N., and 67° in the Channel Islands. The lowest of the minima, which were recorded during the earlier days of the week, varied from 38° in the Midland Counties, and 39° over Ireland, to 47° in England N.E., and to 49° in the Channel Islands.

*Rainfall* was about twice as much as the mean in England N.E., the Midland Counties, England N.W., and the Channel Islands, and slightly in excess in England S. and Ireland S. Over Scotland the fall was just equal to the normal, and in England E. and Ireland N. a little less.

*Bright Sunshine* was very deficient in all parts of the Kingdom, the percentage of the possible duration ranged from 42 in the Channel Islands, and 39 in England S.W., to 17 in England N.E, 13 in Scotland N., and 12 in Scotland E.

*Barometer and Wind.*—During the greater part of the period depressions appeared over our Islands from the Westward or South-Westward, causing moderate winds from between South-East and South-West in the south and south-east, and from between North-East and North-West in the north. The most important system reached our extreme south-west coasts on Tuesday, and gradually filled up during the two following days without changing its position. On Thursday, however, our south-eastern counties were affected by a depression which spread out from Germany and caused considerable rain locally. By the end of the week the barometer was rising steadily, and the wind had become North-Westerly in all parts of the Kingdom.

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913 | 70 6 | 99.

# II.—DATA from which the SUMMARY on page 145 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 62 | 47 | 55·1 | 48·9 | 51·8 | + 1·4 | 69 | 0 | 4 | 0·61 | + 0·16 | * | * | * | * |
| | Stornoway | 63 | 43 | 60·7 | 47·9 | 53·9 | + 1·4 | 83 | 0 | 5 | 1·21 | + 0·56 | 26·3 | −16·9 | 21 | −14 |
| | Wick | 62 | 47 | 59·6 | 49·9 | 54·4 | + 1·7 | 87 | 0 | 5 | 0·53 | + 0·08 | * | * | * | * |
| | Lairg Ⓢ | 68 | 47 | 64·3 | 51·1 | 57·2 | + 3·4 | 106 | 0 | 6 | 0·49 | − 0·05 | * | * | * | * |
| | Glencarron Ⓢ | 70 | 47 | 62·2 | 50·0 | 55·7 | + 1·6 | 96 | 0 | 7 | 0·61 | − 0·54 | * | * | * | * |
| | Fort Augustus Ⓢ | 68 | 50 | 62·6 | 51·7 | 56·8 | + 1·5 | 104 | 0 | 6 | 0·47 | − 0·11 | 5·9 | −25·0 | 5 | −20 |
| | Fort William Ⓢ | 69 | 47 | 61·9 | 52·1 | 56·7 | + 1·5 | 103 | 0 | 6 | 0·59 | − 0·36 | 7·3 | −35·4 | 6 | −29 |
| 1. SCOTLAND E. | Nairn | 71 | 48 | 65·0 | 51·0 | 57·5 | + 2·3 | 109 | 0 | 6 | 0·50 | + 0·10 | * | * | * | * |
| | Aberdeen | 64 | 46 | 60·0 | 50·6 | 55·0 | + 0·3 | 91 | 0 | 4 | 0·56 | + 0·16 | 27·8 | −18·1 | 23 | −14 |
| | Braemar Ⓢ | 65 | 42 | 60·8 | 48·4 | 54·2 | + 1·2 | 85 | 0 | 5 | 0 38 | − 0·24 | 10·8† | −31·5† | 9† | −26† |
| | Ochtertyre Ⓢ | 67 | 45 | 62·9 | 49·6 | 56·3 | − 0·2 | 100 | 0 | 5 | 0·68 | + 0·10 | * | * | * | * |
| | Leith Ⓢ | 70 | 49 | 62·4 | 51·3 | 56·5 | − 0·1 | 102 | 0 | 5 | 0·59 | + 0·17 | * | * | * | * |
| | Marchmont Ⓢ | 68 | 47 | 62·1 | 50·7 | 56·0 | + 1·4 | 98 | 0 | 4 | 0·54 | − 0·03 | 16·3 | −25·8 | 13 | −22 |
| 2. ENGLAND, N.E. | Alnwick Castle | 69 | 47 | 62·2 | 51·0 | 56·2 | + 1·6 | 99 | 0 | 5 | 0·72 | + 0·30 | * | * | * | * |
| | Durham | 71 | 49 | 65·2 | 51·8 | 58·0 | + 1·5 | 112 | 0 | 6 | 0·78 | + 0·36 | 17·2 | −21·9 | 14 | −19 |
| | Shields | 70 | 50 | 61·4 | 52·0 | 56·4 | + 1·2 | 101 | 0 | 6 | 0·96 | + 0·55 | * | * | * | * |
| | Scarborough Ⓜ | 76 | 49 | 66·7 | 50·2 | 57·9 | + 1·4 | 111 | 0 | 4 | 1·01 | + 0·66 | ? | ? | ? | ? |
| | York | | | | | | | | | | | | | | | |
| | Spurn Head | 72 | 52 | 63·7 | 53·0 | 58·0 | + 1·3 | 112 | 0 | 5 | 0·68 | + 0·31 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 75 | 50 | 69·8 | 52·7 | 60·7 | + 2·8 | 131 | 0 | 5 | 0·50 | 0·00 | 29·0 | −16·1 | 25 | −13 |
| | Yarmouth | 64 | 50 | 61·3 | 54·1 | 57·5 | + 0·3 | 103 | 0 | 5 | 0·45 | + 0·02 | * | * | * | * |
| | Geldeston | 77 | 46 | 66·7 | 51·8 | 58·7 | + 1·2 | 117 | 0 | 5 | 0·42 | + 0·02 | 33·1 | −15·9 | 29 | −14 |
| | Cambridge | | | | | | | | | | | | | | | |
| | Felixstowe | 69 | 51 | 63·9 | 54·4 | 58·8 | + 1·6 | 118 | 0 | 6 | 0·60 | ? | 37·8 | ? | 33 | ? |
| | Rothamsted | 69 | 48 | 67·0 | 51·6 | 58·8 | + 0·9 | 118 | 0 | 3 | 0·50 | 0·00 | 25·9 | −19·0 | 22 | −17 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 75 | 48 | 67·9 | 52·9 | 59 9 | + 2·0 | 125 | 0 | 5 | 0·67 | + 0·17 | * | * | * | * |
| | Loughborough | 74 | 48 | 67·1 | 53·4 | 59·8 | + 0·3 | 125 | 0 | 6 | 0·74 | + 0·24 | * | * | * | * |
| | Stamford (Duddington) | 73 | 48 | 68·3 | 52·7 | 60·0 | + 1·6 | 126 | 0 | 5 | 0·80 | + 0·40 | * | * | * | * |
| | Cheadle Ⓜ | 70 | 44 | 64·0 | 51·1 | 57·1 | + 1·4 | 106 | 0 | 5 | 1·09 | + 0·40 | * | * | * | * |
| | Shirley (near Solihull) | 70 | 44 | 65·5 | 51·2 | 57·9 | 0·0 | 111 | 0 | 5 | 1·17 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 70 | 38 | 65·3 | 48·6 | 56·4 | + 0·2 | 101 | 0 | 3 | 1·12 | + 0·62 | 26·7 | −17·0 | 23 | −15 |
| | Hereford (Belmont) Ⓜ | 71 | 40 | 65·3 | 50·0 | 57·1 | − 1·4 | 106 | 0 | 5 | 1·44 | + 0·99 | * | * | * | * |
| | Cirencester | 69 | 43 | 65·7 | 50·0 | 57·3 | + 0·2 | 107 | 0 | 5 | 0·92 | + 0·41 | 30·0 | −14·8 | 26 | −12 |
| | Oxford | 70 | 46 | 67·9 | 52·4 | 59·6 | + 0·7 | 123 | 0 | 3 | 0·45 | − 0·03 | 29·3 | −15·5 | 25 | −14 |
| 5. ENGLAND, S. | London | 75 | 49 | 70·1 | 53·7 | 61·3 | + 0·8 | 135 | 0 | 3 | 0·43 | − 0·02 | 21·6† | −20·2† | 19† | −17† |
| | Cranley Ⓜ | 72 | 49 | 68·9 | 51·7 | 59·7 | + 0·3 | 124 | 0 | 4 | 0·74 | ? | * | * | * | * |
| | Dungeness | 67 | 49 | 64·0 | 55·4 | 59·4 | + 1·2 | 122 | 0 | 4 | 0·20 | − 0·11 | * | * | * | * |
| | Hastings (St. Leonards) | 68 | 51 | 64·7 | 55·1 | 59·6 | + 1·3 | 123 | 0 | 3 | 0·22 | − 0·14 | 30·3 | −22·2 | 27 | −19 |
| | Southampton | 79 | 48 | 70·2 | 53·8 | 61·4 | + 1·7 | 136 | 0 | 4 | 0·60 | + 0·18 | 35·8 | −12·9 | 31 | −12 |
| | Hurst Castle | 74 | 49 | 68·3 | 55·0 | 61·2 | + 2·3 | 134 | 0 | 4 | 0·38 | − 0·04 | * | * | * | * |
| | Shaftesbury Ⓜ | 73 | 46 | 65·5 | 51·0 | 57·8 | + 1·1 | 111 | 0 | 3 | 1·00 | + 0·42 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 69 | 47 | 62·3 | 50·6 | 56·0 | + 0·3 | 98 | 0 | 7 | 1·18 | + 0·15 | * | * | * | * |
| | Glasgow | 63 | 48 | 59·0 | 51·6 | 55·0 | − 1·0 | 91 | 0 | 5 | 0·24 | − 0·34 | 14·0 | −24·8 | 12 | −20 |
| | Glenlee Ⓢ | 71 | 49 | 62·1 | 51·8 | 56·6 | + 1·1 | 102 | 0 | 7 | 0·79 | + 0·11 | * | * | * | * |
| | Douglas (Isle of Man) | 69 | 42 | 62·9 | 50·3 | 56·2 | + 0·6 | 99 | 0 | 4 | 0·46 | − 0·01 | 31·1 | −20·4 | 26 | −18 |
| 7. ENGLAND, N.W. | Stonyhurst | 70 | 47 | 65·3 | 52·8 | 58·6 | + 1·8 | 116 | 0 | 6 | 0·43 | − 0·29 | 31·1 | −13·6 | 26 | −12 |
| | Blackpool Ⓜ | 71 | 49 | 66·1 | 53·0 | 59·1 | + 1·8 | 120 | 0 | 5 | 1·15 | + 0·70 | 25·8 | −19·1 | 22 | −16 |
| | Manchester (Prestwich) | 72 | 45 | 66·0 | 52·1 | 58·6 | + 1·8 | 116 | 0 | 6 | 0·86 | + 0·20 | 27·0 | ? | 23 | ? |
| | Liverpool Obsy. (Bidston) | 73 | 50 | 64·3 | 54·0 | 58·8 | + 1·1 | 118 | 0 | 5 | 1·52 | + 1·09 | 28·9 | ? | 25 | ? |
| | Llandudno Ⓜ | 73 | 49 | 63·4 | 52·7 | 57·7 | 0·0 | 110 | 0 | 5 | 1·35 | + 0·95 | 32·8 | −12·2 | 28 | −11 |
| | Holyhead | 68 | 48 | 62·6 | 53.1 | 57·5 | + 0·3 | 109 | 0 | 5 | 1·23 | + 0·81 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 75 | 43 | 68·3 | 50·9 | 59·0 | + 1·6 | 119 | 0 | 3 | 0·54 | − 0·11 | * | * | * | * |
| | Pembroke | 64 | 50 | 61·4 | 53·0 | 56·9 | + 0·4 | 104 | 0 | 3 | 0·92 | + 0·52 | 41·0 | −13·8 | 35 | −13 |
| | Clifton | 72 | 48 | 67·0 | 53·6 | 59·8 | + 1·6 | 125 | 0 | 3 | 0·46 | − 0·01 | * | * | * | * |
| | Arlington (N. Devon) | 68 | 43 | 63·9 | 49·9 | 56·4 | + 0·2 | 101 | 0 | 3 | 0·70 | 0·00 | * | * | * | * |
| | Cullompton Ⓜ | 74 | 41 | 67·1 | 50·5 | 58·2 | − 0·2 | 113 | 0 | 3 | 1·14 | + 0·54 | 45·3 | − 1·3 | 40 | − 1 |
| | Falmouth | 67 | 50 | 64·0 | 53·0 | 58·1 | + 0·4 | 113 | 0 | 3 | 0·75 | + 0·15 | 42·6 | −11·1 | 38 | − 9 |
| | Plymouth | 68 | 48 | 64·3 | 53·6 | 58·6 | − 0·9 | 116 | 0 | 3 | 0·94 | + 0·53 | 48·2 | + 0·1 | 43 | 0 |
| | Prawle Point | 70 | 47 | 63·9 | 52·1 | 57·6 | + 1·0 | 109 | 0 | 3 | 0·96 | + 0·62 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 59 | 49 | 57·0 | 50·6 | 53·6 | − 1·7 | 81 | 0 | 5 | 0·82 | ? | * | * | * | * |
| | Londonderry | 72 | 45 | 63·4 | 49·6 | 56·0 | − 1·1 | 98 | 0 | 5 | 0·49 | − 0·02 | * | * | * | * |
| | Edenfel (Omagh) | 71 | 39 | 62·3 | 48·3 | 55·0 | − 0·4 | 91 | 0 | 5 | 0·47 | − 0·08 | * | * | * | * |
| | Belmullet | 64 | 45 | 59·9 | 49·4 | 54·3 | − 2·4 | 86 | 0 | 4 | 0·09 | − 0·54 | * | * | * | * |
| | Markree Castle | 70 | 40 | 61·8 | 47·0 | 53·9 | − 1·2 | 83 | 0 | 3 | 0·41 | − 0·26 | 24·8 | −15·2 | 21 | −13 |
| | Armagh | 69 | 42 | 63·0 | 48·0 | 55·0 | − 1·2 | 91 | 0 | 4 | 0·34 | + 0·26 | 28·3 | −13·3 | 24 | −11 |
| | Donaghadee | 65 | 44 | 59·4 | 48·6 | 53·6 | − 2·5 | 81 | 0 | 3 | 0·44 | + 0 03 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND S. | Dublin | 69 | 46 | 64·3 | 52·0 | 57·7 | − 0·9 | 110 | 0 | 3 | 1·16 | + 0·79 | 36·1 | − 9·5 | 31 | − 7 |
| | Parsonstown | 71 | 39 | 62 6 | 47·9 | 54·7 | − 2·2 | 89 | 0 | 3 | 0·88 | + 0·39 | 27·4 | −12·9 | 23 | −12 |
| | Kilkenny | | | | | | | | 0 | | | | * | * | * | * |
| | Roche's Point | 66 | 48 | 62·0 | 51·4 | 56·3 | − 1·9 | 100 | 0 | 3 | 1·40 | + 0·70 | * | * | * | * |
| | Valencia | 62 | 42 | 59·4 | 50·4 | 54·6 | − 2·8 | 88 | 0 | 3 | 0·31 | − 0·55 | 20·4 | −27·0 | 18 | −23 |
| | Killarney | 66 | 40 | 61.8 | 48·6 | 54·7 | − 1·9 | 89 | 0 | 4 | 0·23 | ? | * | * | * | * |
| | Foynes | 61 | 40 | 61·1 | 47·8 | 54·0 | − 2·6 | 84 | 0 | 3 | 0·42 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 62 | 54 | 61·6 | 55·1 | 58·1 | + 0·4 | 113 | 0 | 4 | 0·84 | + 0·45 | 43·2 | ? | 38 | ? |
| | Jersey | 67 | 49 | 65·9 | 55·0 | 60·1 | + 0·4 | 127 | 0 | 4 | 0·67 | + 0·28 | 45·9 | −10·8 | 41 | −10 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

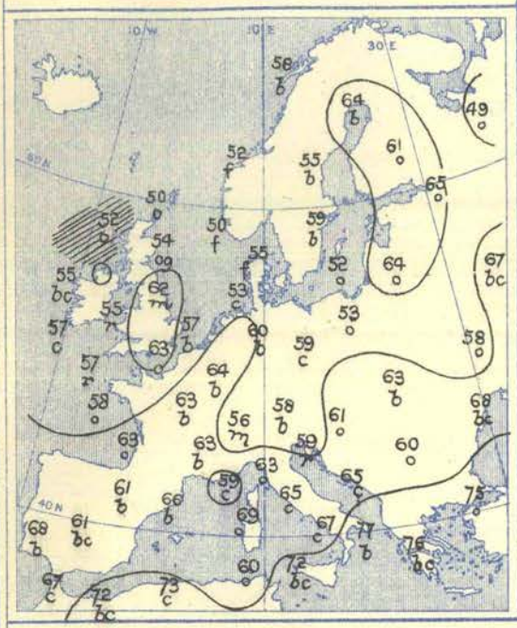
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 18th June.

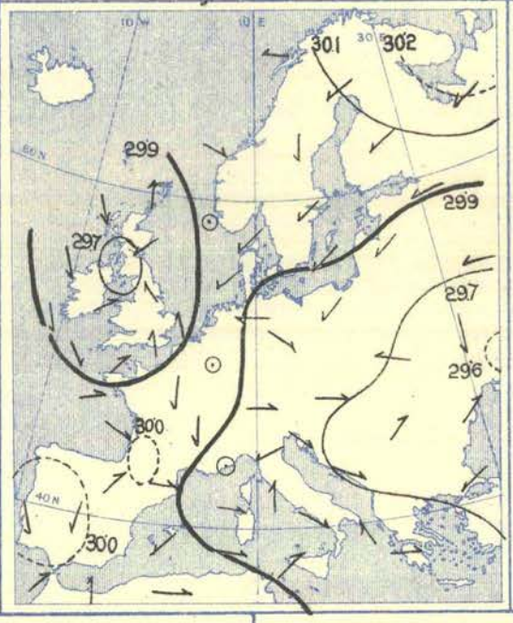
### Temperature and Weather.

8 a.m.

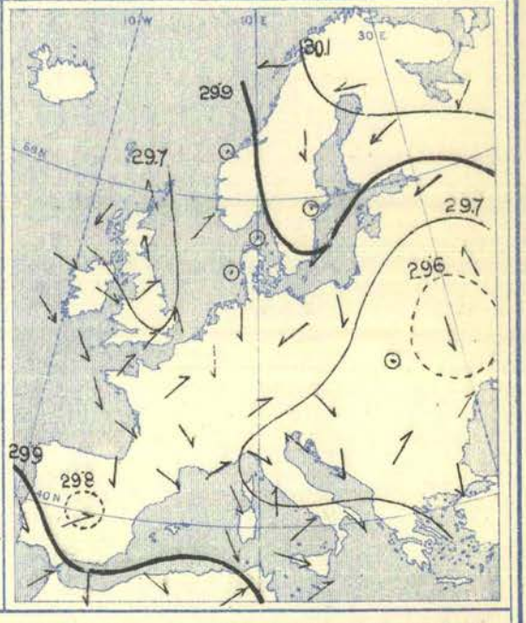


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over northern Europe, France, and Spain, and fair over the south-east of England; dull and rainy in Scotland, Ireland, and Wales, and unsettled, with rain in places, over south-eastern Europe. Rain later in all parts of our Islands and their neighbourhood, as well as over various parts of Austria and Italy, and a little at Moscow; lightning reported at Spurn Head; thunder at Nairn.

*Temperature* in morning fallen over Ireland and Scotland; risen over France. Morning readings highest, 77° at Brindisi, 76° at Patras, 73° at Algiers, 72° at Barcelona, 67° at Naples; above 60° over France and England; 67° at Kharkov and Moscow, 66° at Ulealborg. Lowest, 49° at Archangel, and also at Malin Head, 50° at Sumburgh Head, 54° at Aberdeen and Parsonstown, 57° at Valencia. Rising later to between 70° and 75°, for a brief interval, in many parts of England, to 72° at Berlin, 80° at Paris, 86° at Palermo and some parts of Algeria.

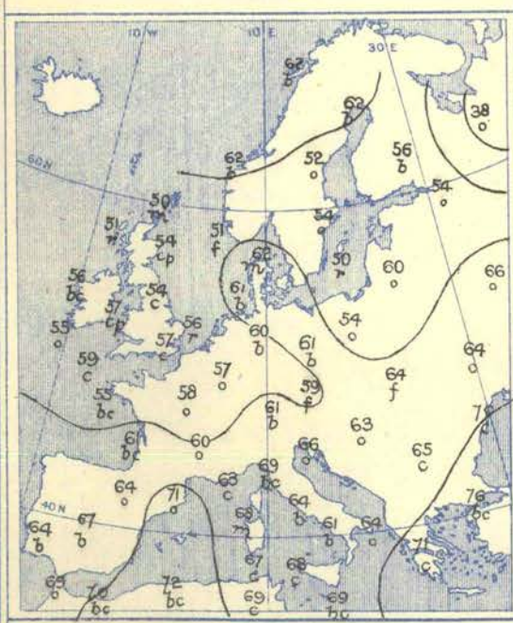
*Wind* was North-Easterly over northern Europe; very variable over the eastern, central, and southern countries; cyclonic (but light to moderate) over our Islands, viz., Southerly in the east; South-Easterly to Easterly in the north-east; Northerly in the north-west and over Ireland; South-Westerly in the Channel. Freshening in the west later, and becoming gusty and unsettled.

*Barometer* (1) 30·3 ins. at Archangel, and varying from that value to 29·9 ins. all over northern Europe; (2) 30·33 ins. at Ponta Delgada, and exceeding 30·0 ins. over Portugal, Spain, and the south-west of France. Lowest, (1) below 29·7 ins. in a well-formed (but not deep) depression lying over the northern parts of Great Britain, and 29·6 ins. and less to 29·7 ins. over south-eastern Europe. Changing irregularly over our Islands later, and further complications appearing in the south-west.

## Monday, 19th June.

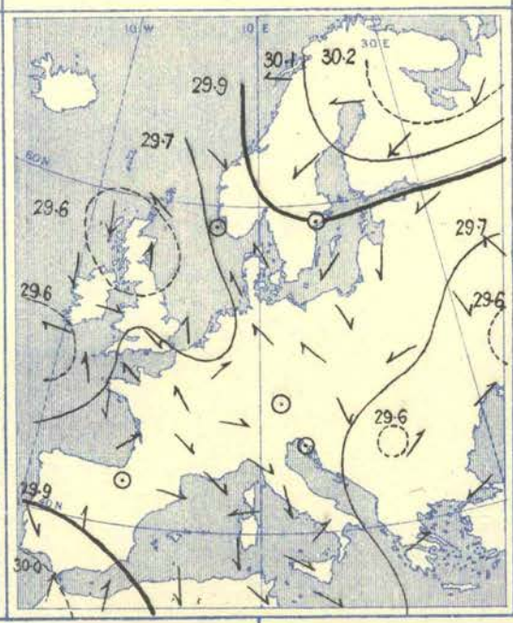
### Temperature and Weather.

8 a.m.

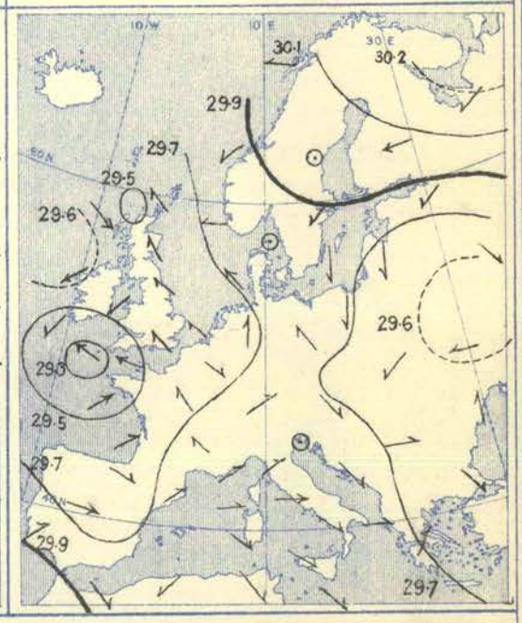


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair over the north of Ireland, fine over northern Europe on the one hand, and over the Iberian Peninsula on the other; not so fine over central Europe, and rather unsettled and showery over Great Britain, and the south of Ireland; Solar halo seen in London at even. Much rain later in the south-east of Ireland, the south-west of England, and over Brittany, and showers in many parts of Great Britain, France, and northern Europe.

*Temperature* fallen a little at our north-eastern and eastern stations and over France. Morning readings highest, 76° at Constantinople, 72° at Algiers, and above 70° at Barcelona and Perpignan; 71° at Odessa, 70° at Nicolaieff. Above 60° over the southern and eastern parts of Europe as a whole; 60° at Hurst Castle, and above 60° over the northern parts of Scandinavia. Lowest, (1) 38° at Archangel, 54° at St. Petersburg, Stockholm, and Neufahrwasser; (2) 50° at Sumburgh Head, and 51° to 55° over Scotland and the north of Ireland; touching 67° at Leith and Loughborough later, 70° in London, 72° at Paris, 77° at Berlin, and 81° at Nice.

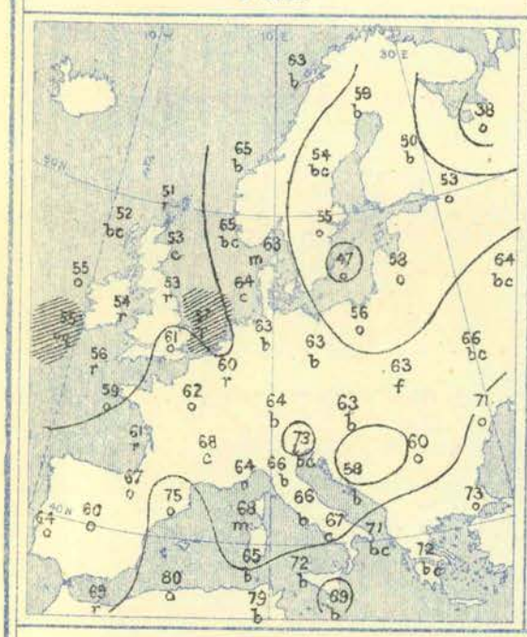
*Wind* (1) anticyclonic North-Easterly to South-Easterly over Scandinavia and Denmark, very variable over central Europe, France and Spain; (2) a definite cyclonic circulation setting in over the south of Ireland and the south-west of England; the latter circulation covering a more extended area later, and blowing with increased force on our western and southern coasts.

*Barometer* highest, (1) 30·2 ins. to 29·8 ins. over northern Europe, Sweden and parts of northern Germany; (2) 30·30 ins. at P. Delgada, and 30·0 ins. to 29·8 ins. over south-western Europe. Lowest, 29·6 ins. and less in a shallow depression over Scotland, and in another disturbance approaching our south-west coasts from west-north-west. Latter disturbance growing much deeper later and advancing to the mouth of the English Channel.

## Tuesday, 20th June.

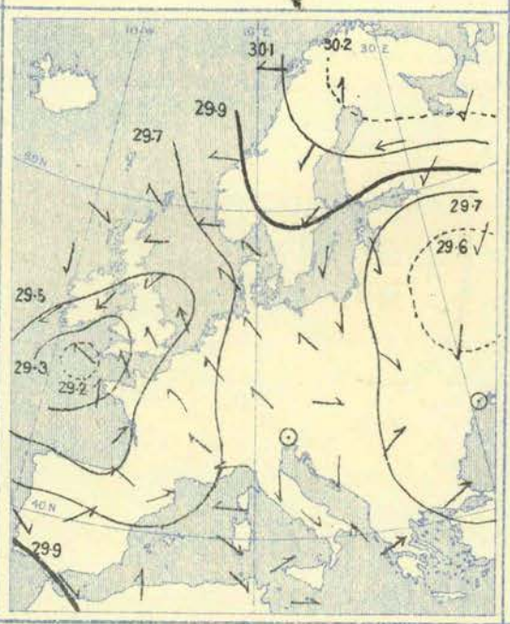
### Temperature and Weather.

8 a.m.

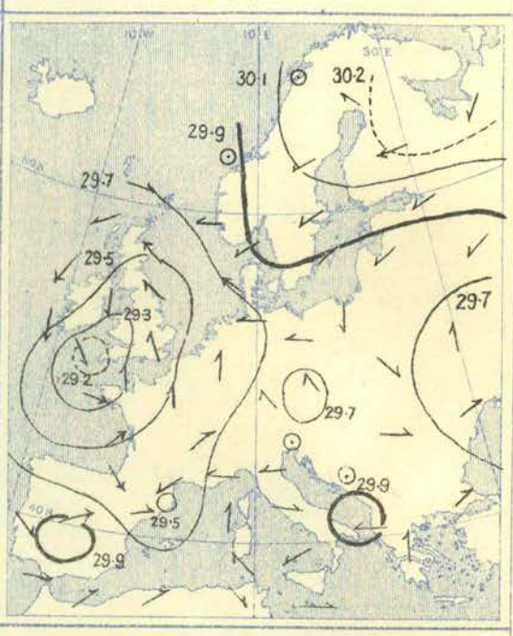


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine and bright over northern Europe, Russia, Germany, Italy, and at many of the Mediterranean stations; cloudy and unsettled over the British Islands and the north and west of France, with rain in many places. Rain falling later in all the last named regions—heavily at Rochefort, Lyons and Clermont, and in considerable quantity at several of our northern stations.

*Temperature* not changing very decidedly except over Algeria and Greece. Morning readings highest 80° at Algiers, 79° at Sfax, 75° at Barcelona, 72° at Athens, 64° at Nice, 61° at Lorient, and also at Hurst Castle, Dungeness and Copenhagen. Considerably above 60° over Russia and Norway also. Lowest (1) 38° at Archangel, 47° at Wisby; (2) 51° at Sumburgh Head, 52° at Stornoway and Parsonstown, 53° at Aberdeen and Shields. Rising later to a little above 70° in several parts of England to 76° at Paris, 79° at Berlin and Perpignan, 90° at La Calle.

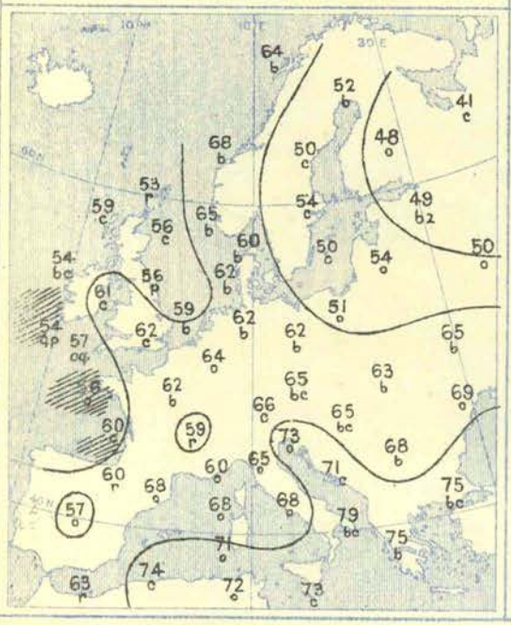
*Wind* (1) light to moderate from North-East to East over northern Europe; very light from various directions over eastern Europe and the Mediterranean; (2) Cyclonic and moderate to fresh in force over our Islands and their neighbourhood—viz., Southerly to South Easterly over England, Easterly in Scotland, and North-Easterly over Ireland.

*Barometer* highest (1) 30·2 ins. and more to 29·9 ins. over northern Europe Norway and Sweden; (2) 29·9 ins. to 29·7 over the southern parts of Spain and over the north of Africa. Lowest, 29·2 ins. to 29·1 ins. in a depression at the mouth of the Channel, and below 29·6 ins. in another shallow system over the southern half of Russia. The system near Scilly moving very little later, but beginning to fill up.

## Wednesday, 21st June.

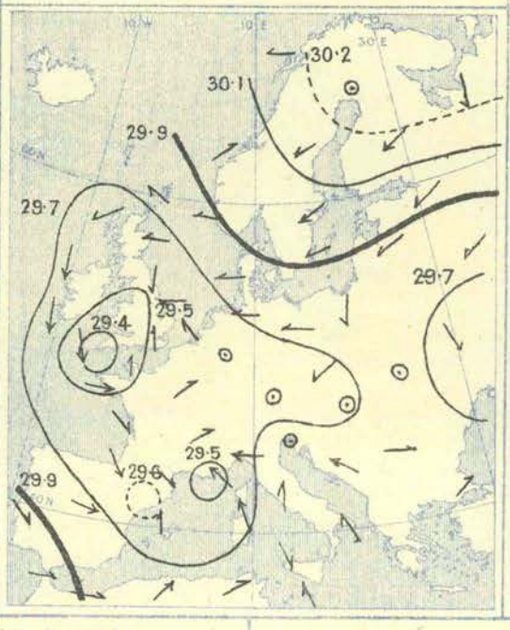
### Temperature and Weather.

8 a.m.

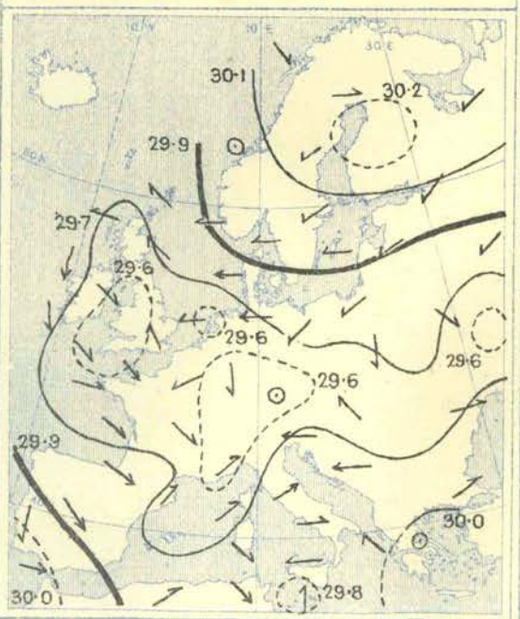


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine and bright over the northern countries of Continental Europe, fine also over central Europe and the south-east of England; changeable and unsettled elsewhere. Rain falling during the day, except over Scandinavia and the south of England, the amounts reported being large at Gap, Lyons, Besançon and Nancy, and parts of the north-east of France, and in the south of Lapland.

*Temperature* fallen over France, risen over Scotland and Norway. Morning readings highest, 79° at Brindisi, 75° at Athens, 74° at Algiers; above 60° over nearly the whole of France, central Europe and the central half of England. 64° to 68° in Norway, 65° at the Helder. Lowest, (1) 41° at Archangel, 48° at Kuopio, 50° at Moscow; (2) 51° at Parsonstown, 53° at Sumburgh Head, 56° at Aberdeen and Shields. Rising later to between 70° and 74° over England and to 77° at Wiesbaden, but not touching 70° at Paris or in any part of Scotland and Ireland. High over Spain.

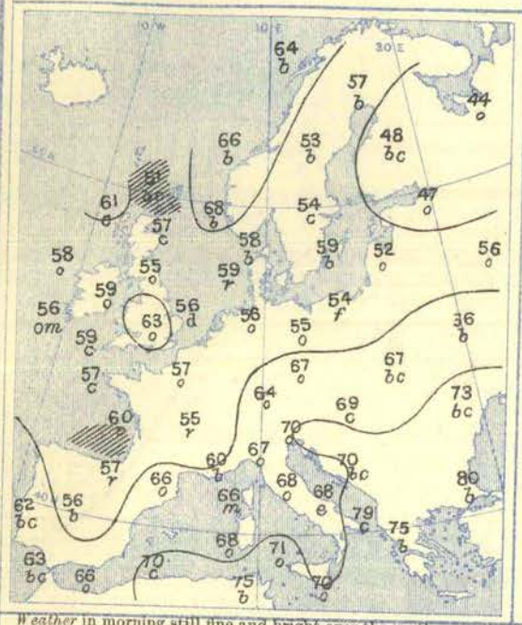
*Wind* Easterly to North-Easterly, moderate to strong over the northern countries of Europe. Northerly in Ireland, North-Westerly and Westerly in the west of France, Spain and Algeria. Blowing strongly from the Northward in some parts of Ireland during day.

*Barometer* highest, (1) 30·2 ins. and more to 29·9 ins. over northern Europe as a whole; (2) 30·26 ins. at P. Delgada; 29·9 ins. and more over the south-west of Spain as well as in some parts of Greece. Lowest, (1) 29·4 ins. and less in a depression over Cornwall and the mouth of the Channel, and below 29·6 ins. in certain irregularities over France and the Netherlands; (2) below 29·7 ins. in a large depression over the south of Russia. Rising in our Islands later but falling in Germany.

## Thursday, 22nd June.

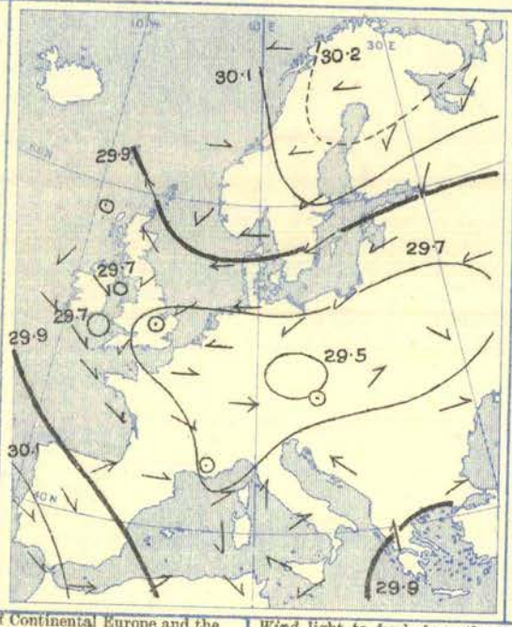
### Temperature and Weather.

8 a.m.

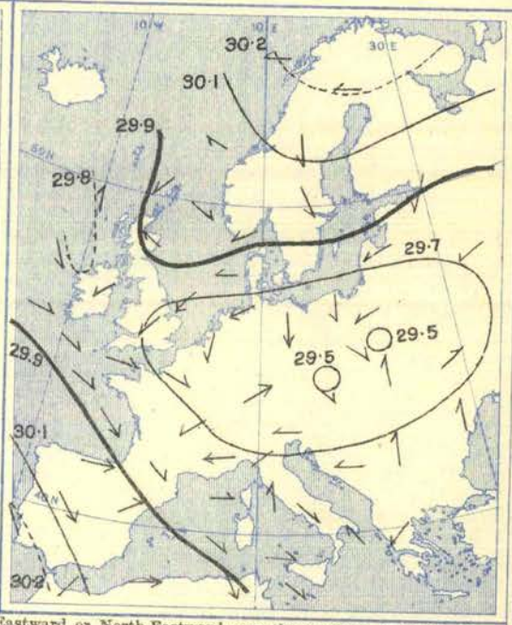


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning still fine and bright over the northern parts of Continental Europe and the north of our Islands, also in the south of Russia and the south-western parts of the Iberian Peninsula. Dull and unsettled over western Germany, the east of France, and the greater part of England, with slight rain at Yarmouth. Rain later over many parts of northern Russia, more over western Germany, France, and England, but weather continuing fine both over northern Europe and in Spain. Thunderstorm at Helder in evening.

*Temperature* fallen fast over north Germany, not changed much elsewhere. Morning readings highest, 80° at Constantinople, 79° at Brindisi, 75° at Patras, 70° at Algiers, Malta, Odessa, and Trieste. Above 60° over south Germany, and also on the Norwegian coasts—distribution therefore very complex. Lowest, (1) 44° at Archangel, 47° at St. Petersburg; (2) 51° at Sumburgh Head, 54° at Spurn Head and Swinemünde, 55° at Berlin, 56° at Valencia. Exceeding 70° later at a few of our stations, but not rising above 63° at Berlin, and 60° at Paris. Exceeding 85° at Brindisi.

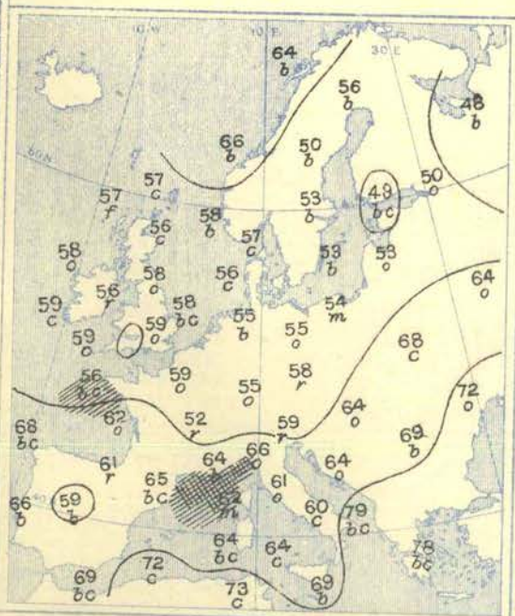
*Wind* light to fresh from the Eastward or North-Eastward over the northern countries of Europe, and from the Westward over the southern countries; light and variable over Scotland and Ireland; mainly North-Easterly to North-Westerly over England. The Northerly wind freshening over the east of England during the day.

*Barometer* in morning highest, (1) 30·2 ins. and more to 30·0 ins. over northern Europe; (2) 30·37 ins. in the Azores, and 30·1 ins. and more to 29·8 ins. over the Iberian Peninsula. Lowest, 29·5 ins. to 29·7 ins. over Germany and France, and 29·7 ins. and less over Cornwall and north Wales; (3) 29·8 ins. and less at Malta. German depression spreading westwards later to England, but beginning to break up towards night. Northern anticyclone showing some signs of giving way.

## Friday, 23rd June.

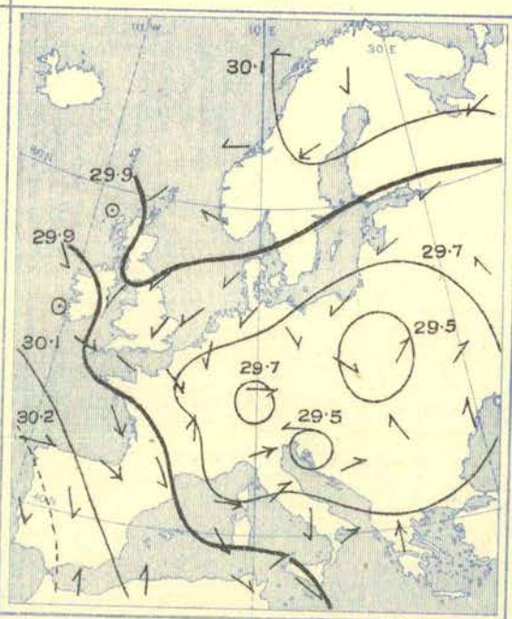
### Temperature and Weather.

8 a.m.

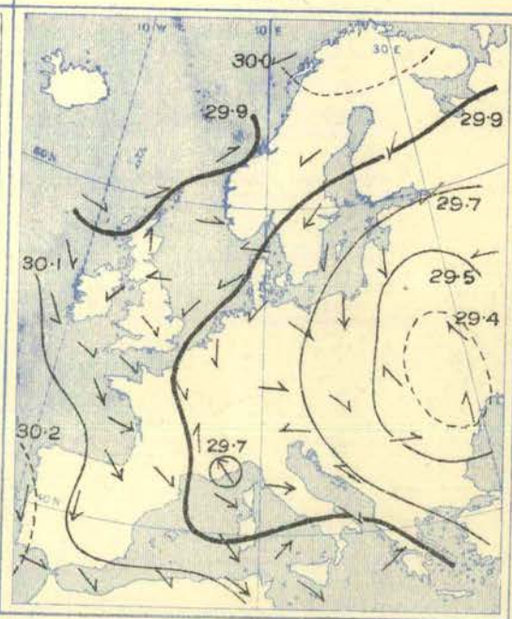


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over Lapland and Scandinavia, and also over the Iberian Peninsula; dull and less settled over central Europe and the British Islands, with rain at some of the French stations and at Holyhead. A little rain later at the Scotch and northern Irish stations, as well as over Germany and Denmark, and rather larger quantities in the south-west of France, at Hernösand, at Brindisi, and in many parts of Austria. Still fine over Lapland and Norway.

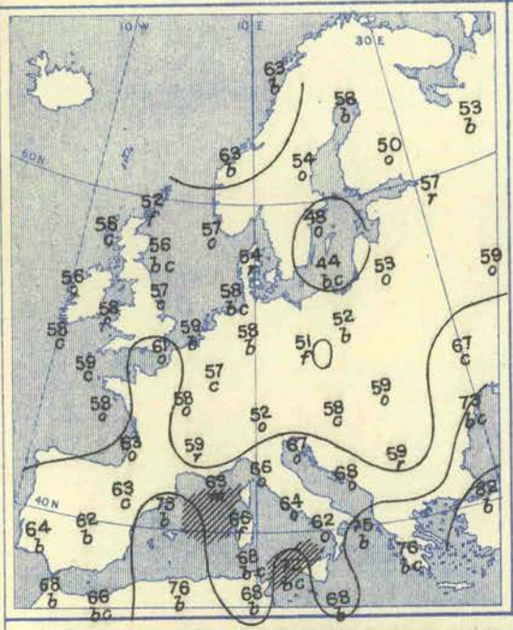
*Temperature* below the mean for the time of year. Highest in morning, 79° at Brindisi, 78° at Athens, 75° at Nicolaieff, 69° at Kiev; above 60° at most of the Mediterranean stations, and at some of the southern stations in our Islands, 66° at Christiansund, 64° at Bodö. Lowest, (1) 48° at Archangel, 49° at Hangö; (2) 54° at Donaghadee, 55° at Shields, 56° at Aberdeen and Holyhead. Not touching 70° at any of our own stations later, but rising to 70° at Paris, and 79° at Nice, 86° at Brindisi.

*Wind* light to moderate in force—North-North-Easterly to Easterly over Scandinavia and the North Sea; South-Easterly in Scotland; (2) North-Westerly to Westerly over the west and south of Europe, but variable in places; (3) very light and variable over central Europe. Becoming Northerly to North-Westerly in Ireland later.

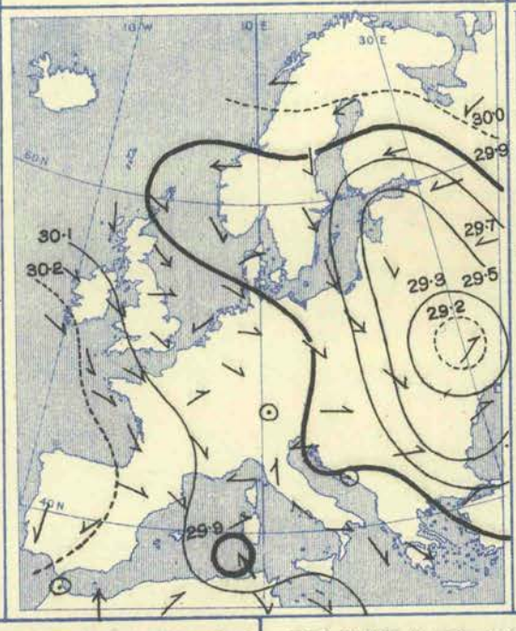
*Barometer* highest, (1) 30·18 ins. to 29·9 ins. over the northern parts of Scandinavia, Finland, and Lapland; (2) 30·43 ins. at the Azores, and 30·3 to 30·0 ins. over the Iberian Peninsula—latter system spreading northwards. Lowest, 29·5 ins. to 29·6 ins. in a very complex, but shallow system over central Europe and the Riviera. Rising steadily in our Islands later.

## Saturday, 24th June.

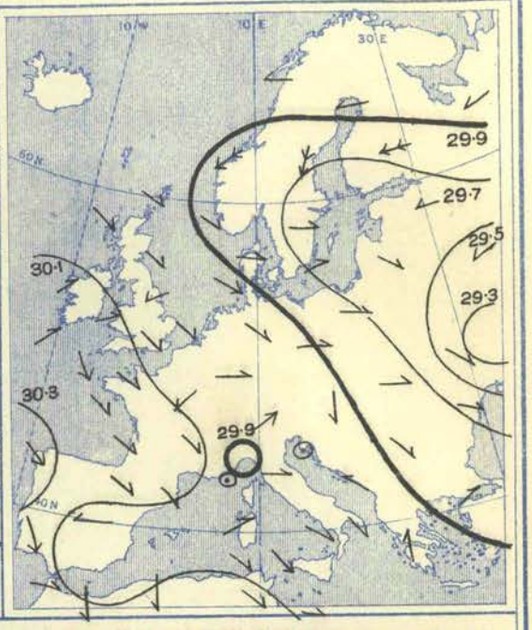
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the Iberian Peninsula, and also over Lapland and the north of Russia, fair as a whole over our Islands and France, (though rainy at some of the French stations,) dull, rainy, and unsettled over Hungary and the west of Russia. A little rain later at a few of our own stations, and those in western Europe—most at Valencia, where a quarter of an inch fell at night.

*Temperature* fallen over the Baltic, and inclined to fall in Ireland. Morning readings highest, 82° at Constantinople, 76° at Algiers and Patras, 75° at Brindisi and Nicolaieff, 73° at Barcelona; considerably above 60° over the Mediterranean, the south-west of France, and south coast of England, (2) over the north-west of Norway. Lowest, (1) 44° at Wisby, 48° at Stockholm, 49° at Breslau, 51° at Karlstadt; (2) 52° at Sumburgh Head, 55° at Liverpool, 56° at Stornoway, Aberdeen, and Parsonstown. Rising later to 70° at Leith, Prawle Point and Oxford, to 74° at Hurst Castle, and to 76° at Perpignan—not touching 70° in other parts of our Islands.

*Wind* (1) light to moderate from between West and North-West on our coasts and over the Bay of Biscay, moderate from East over the north-west of Norway; (2) strong from Eastward over Finland, from the Northward in the east of Sweden, and from North-West over Germany and Hungary. Backing to South-West in the west of Ireland later.

*Barometer* highest, (1) 30·0 ins. and more over Lapland; (2) 30·43 over the Azores and 30·2 ins. and more to 30·1 ins. over the Spanish Peninsula and west of France. Lowest, 29·2 ins. and less to 29·4 ins. over the southern half of Russia, and 29·9 ins. and less in a smaller depression near Cagliari. Rising over our Islands later, falling over the Baltic.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟶⟶ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

## GENERAL NOTES.

The weather of the past week was marked by the prevalence of considerable and frequent showers over the United Kingdom, the Baltic and central Europe; some of these were heavy locally, some light and temporary.

As far as our Islands were concerned, the first showers fell over the northern and western parts of the Kingdom on Sunday the 18th in a small disturbance which reached us from the Atlantic during the previous night. This had scarcely affected our midland and eastern counties, when another system reached the mouth of the English Channel from the west-north-westward. There it grew deep, and further falls of rain were experienced both in our Islands and in many parts of France for some time.

The weather now began to break up over central Europe. A sharp series of thunderstorms were felt over the Netherlands and the east of France on Wednesday night, and on Thursday a well marked depression which had been formed over Germany spread to our southern and eastern counties, causing rain in those regions (especially in London), and further falls not only in France, but Italy, Austria, and some parts of Russia.

At the close of the week there were slight indications of some further disturbance in the extreme west and north-west of the British Isles, but in the eastern half of the Kingdom the weather was improving.

## BRIGHT SUNSHINE Values for the Week, in addition to those found on page 146.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 25·1 | ? | 20 | ? |
| STRATHPEFFER SPA | 16·3 | −24·3 | 13 | −20 |
| EDINBURGH | 5·0 | −31·3 | 4 | −26 |
| MORPETH | 21·2 | ? | 18 | ? |
| NEWCASTLE-ON-TYNE | 15·6 | ? | 13 | ? |
| OSWALDKIRK (Yorkshire) | 26·8 | −10·4 | 23 | − 9 |
| HOLLESLEY BAY | 35·2 | ? | 30 | ? |
| SHEFFIELD | 24·7 | ? | 21 | ? |
| WORKSOP | 22·6 | −13·6 | 19 | −13 |
| THURCASTON (Leicestershire) | 23·9 | −15·3 | 20 | −14 |
| MARGATE | 31·4 | −10·6 | 28 | − 9 |
| WESTBOURNE (Emsworth) | 43·1* | − 5·7 | 38* | − 5 |

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|
| WATERGATE (Emsworth) | 31·8 | ? | 28 | ? |
| BRIGHTON | 36·1 | −15·7 | 32 | −13 |
| BOGNOR | 41·5* | ? | 36* | ? |
| WORTHING | 31·4 | ? | 28 | ? |
| EASTBOURNE | 32·6 | −17·9 | 29 | −16 |
| VENTNOR HOSPITAL | 34·3 | ? | 30 | ? |
| SOUTHPORT | 31·6 | ? | 27 | ? |
| COLWYN BAY | 35·8 | ? | 31 | ? |
| ABERDOVEY | 38·2* | ? | 33* | ? |
| TENBY | 36·5 | −16·8 | 32 | −15 |
| NEWQUAY | 49·0 | − 5·3 | 43 | − 6 |
| TORQUAY | 52·8* | − 5·0 | 47* | − 4 |
| GUERNSEY | | | | |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS LTD. LITH. 63, CARTER LANE

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH. 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 26.] *Third Series.* WEEK ENDING SATURDAY, JULY 1ST, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 152.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 70 | 40 | 61·4 | 48·1 | 54·3 | 0 (average) | 86 | +13 | 0 | − 1 | 759 | + 98 | 617 | − 6 |
| | 1. SCOTLAND, EAST | 72 | 38 | 63·4 | 49·1 | 55·8 | 0 (average) | 97 | + 7 | 0 | 0 | 875 | + 44 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 75 | 43 | 66·0 | 50·9 | 57·9 | 1 above | 111 | +15 | 0 | 0 | 990 | +151 | 456 | − 93 |
| | 3. ENGLAND, EAST | 78 | 46 | 69.2 | 52·8 | 60.4 | 2 above | 129 | +21 | 0 | 0 | 1180 | +142 | 421 | −196 |
| | 4. MIDLAND COUNTIES | 79 | 44 | 69·3 | 52·7 | 60·4 | 2 above | 129 | +21 | 0 | 0 | 1216 | +138 | 478 | −141 |
| | 5. ENGLAND SOUTH | 82 | 47 | 70·3 | 54·3 | 61·7 | 2 above | 138 | +23 | 0 | 0 | 1364 | +221 | 294 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 66 | 42 | 62·4 | 50·2 | 55·9 | 1 below | 97 | + 4 | 0 | 0 | 966 | + 71 | 413 | − 49 |
| | 7. ENGLAND, N.W. | 72 | 47 | 64·7 | 54·3 | 59·1 | 1 above | 120 | +18 | 0 | 0 | 1128 | +183 | 313 | −146 |
| | 8. ENGLAND, S.W. | 77 | 46 | 66·1 | 54·1 | 59·7 | 1 above | 124 | +16 | 0 | 0 | 1333 | +224 | 240 | −121 |
| | 9. IRELAND, NORTH | 72 | 47 | 62·9 | 52·9 | 57·6 | 1 above | 109 | +12 | 0 | 0 | 1084 | + 98 | 323 | − 72 |
| | 10. IRELAND, SOUTH | 74 | 43 | 64·8 | 54·3 | 59·2 | 1 above | 120 | +15 | 0 | 0 | 1356* | +202 | 245 | − 54 |
| | —CHANNEL ISLANDS | 77 | 54 | 66·1 | 55·9 | 60·6 | 1 above | 130 | +15 | 0 | 0 | 1652 | +395 | 81 | − 67 |

### Rainfall. / Bright Sunshine.

| | DISTRICTS. (See p. 152.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 4 | 6 | 1 less | 111 | − 5 | 22·7 | + 0·7 | 32 | −13 | 26 | −11 | 688 | + 42 | 29 | + 2 |
| | 1. SCOTLAND, EAST | 6 | 13 | 8 more | 105 | +12 | 16·8 | + 3·2 | 33 | − 7 | 27 | − 6 | 744 | + 47 | 33 | + 2 |
| | 2. ENGLAND, N.E. | 5 | 11 | 7 more | 95 | + 7 | 12·1 | + 1·0 | 28 | − 9 | 24 | − 6 | 710 | + 39 | 32 | + 2 |
| | 3. ENGLAND, EAST | 4 | 10 | 5 more | 86 | + 1 | 10·7 | − 0·2 | 48 | − 2 | 42 | − 1 | 942* | +112 | 40 | + 5 |
| | 4. MIDLAND COUNTIES | 4 | 11 | 6 more | 86 | + 3 | 13·3 | + 1·3 | 31 | − 8 | 27 | − 7 | 833 | +140 | 38 | + 6 |
| | 5. ENGLAND, SOUTH | 4 | 8 | 4 more | 75 | − 5 | 11·2 | − 1·2 | 51 | + 4 | 44 | + 3 | 979 | +150 | 43 | + 7 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 5 | 24 | 17 more | 108 | + 9 | 25·5 | + 3·5 | 21 | −23 | 18 | −19 | 742 | + 13 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 5 | 14 | 9 more | 99 | + 9 | 17·4 | + 3·3 | 21 | −21 | 18 | −18 | 856 | +131 | 38 | + 6 |
| | 8. ENGLAND, S.W. | 3 | 7 | 2 more | 92 | + 2 | 20·4 | + 3·7 | 39 | − 7 | 35 | − 6 | 961 | + 86 | 43 | + 4 |
| | 9. IRELAND, NORTH | 6 | 17 | 12 more | 114 | + 9 | 18·9 | + 2·8 | 11 | −29 | 10 | −23 | 781 | + 83 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 5 | 8 | 2 more | 97 | 0 | *21·2 | + 3·4 | 17 | −25 | 15 | −22 | 872 | + 81 | 39 | + 4 |
| | — CHANNEL ISLANDS | 3 | 5 | 1 more | 89 | − 8 | 14·6 | + 0·5 | 56 | +15 | 50 | +14 | 1058 | +112 | 49 | + 5 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this week gradually became very unsettled. Rain was very frequent and general. Thunderstorms occurred in nearly all parts of the Kingdom on Wednesday and Thursday, and again towards the close of the period in many parts of central and eastern England.

*Temperature* was a little above the mean in most districts, but only just equalled the normal in Scotland N. and E., and was slightly below it in Scotland W. The highest of the maxima were recorded during the earlier days of the period, and ranged from 82° in England S., and 79° in the Midland Counties, to 72° in Scotland E., England N.W., and Ireland N., and to 70° in Scotland N. The lowest of the minima occurred on the 27th in Scotland, and on irregular dates over England and Ireland; they varied from 38° in Scotland E., to 47° in England S. and N.W., and Ireland N., and to 54° in the Channel Islands.

*Rainfall* exceeded the mean in all districts except Scotland N. In Scotland W. the fall was more than three times the mean amount, and in most other districts between two and three times the normal. Great local variation in the fall was experienced, and at Eastry (near Dover) on Thursday as much as 2·5 ins. fell during five hours.

*Bright Sunshine* was again deficient generally, but exceeded the mean in England S. and the Channel Islands. The percentage of the possible duration ranged from 50 in the last named district, and 44 in England S., to between 18 and 27 in Scotland, and to between 10 and 15 in Ireland.

*Barometer and Wind.*—At the commencement of the week an anticyclone lay over and to the southward of our extreme south-western coasts, while a depression was moving south-eastwards over Scandinavia. North-Westerly winds of moderate strength consequently prevailed over England and the east of Scotland, and Westerly and South-Westerly winds in the extreme west and north-west. The anticyclone subsequently moved north-eastwards over our Islands, and then eastwards to Germany, and on and after Wednesday depressions travelled north-eastwards or eastwards over the United Kingdom, causing the wind to vary between South and West or North-West, and producing local showers. At the end of the period a disturbance was passing eastwards across the north of England, and with this system the wind in the southern districts and over the English Channel increased to the force of a moderate or fresh gale from the Westward.

207 | 90 Wy. & S., Ltd.
913 | 70 6 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 151 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 59 | 45 | 56·7 | 48·4 | 52·3 | + 1·1 | 72 | 0 | 3 | 0·20 | − 0·27 | * | * | * | * |
| | Stornoway | 63 | 44 | 61·0 | 49·1 | 54·6 | + 1·6 | 88 | 0 | 4 | 0·68 | + 0·02 | 28·7 | −13·7 | 23 | −11 |
| | Wick | 67 | 40 | 61·7 | 46·6 | 53·6 | − 0·1 | 81 | 0 | 3 | 0·45 | − 0·04 | * | * | * | * |
| | Lairg 𝔖 | 69 | 39 | 63·9 | 45·9 | 54·3 | 0·0 | 86 | 0 | 6 | 0·48 | − 0·09 | * | * | * | * |
| | Glencarron 𝔖 | 67 | 41 | 61·2 | ? 47·7 | ? 54·0 | ?− 0·5 | ? 84 | 0 | 5 | 0·94 | − 0·21 | * | * | * | * |
| | Fort Augustus 𝔖 | 70 | 41 | 64·6 | 48·9 | 56·2 | 0·0 | 99 | 0 | 5 | 0·63 | + 0·01 | 22·8 | − 7·2 | 19 | − 5 |
| | Fort William 𝔖 | 65 | 44 | 61·0 | 50·4 | 55·3 | − 0.6 | 93 | 0 | 5 | 1·13 | + 0·13 | 18·0 | −23·0 | 15 | −20 |
| 1. SCOTLAND E. | Nairn | 69 | 42 | 64·9 | 49·1 | 56·5 | + 0·5 | 102 | 0 | 5 | 1·02 | + 0·61 | * | * | * | * |
| | Aberdeen | 66 | 44 | 61·1 | 50·3 | 55·3 | − 0·4 | 93 | 0 | 7 | 0·79 | + 0·39 | 39·9 | − 4·6 | 32 | − 4 |
| | Braemar 𝔖 | 65 | 38 | 59·3 | ? 45·6 | ? 52·0 | ? − 2·7 | ?70 | 0 | 7 | 1·10 | + 0·42 | 25·5† | −15·3† | 21† | −12† |
| | Ochtertyre 𝔖 | 72 | 41 | 66·0 | 49·1 | 57·0 | 0·0 | 105 | 0 | 6 | 1·75 | + 1·16 | * | * | * | * |
| | Leith | 71 | 48 | 64·7 | 52·0 | 57·9 | + 0·5 | 111 | 0 | 4 | 1·47 | + 1·04 | * | * | * | * |
| | Marchmont 𝔖 | 67 | 44 | 64·4 | 48·4 | 55·8 | + 0·3 | 97 | 0 | 5 | 1·04 | + 1·04 | 32·5 | − 8·6 | 27 | − 7 |
| 2. ENGLAND, N.E. | Alnwick Castle | 74 | 45 | 67·0 | 50·2 | 58·0 | + 2·3 | 112 | 0 | 4 | 1·04 | + 0·60 | * | * | * | * |
| | Durham | 75 | 43 | 68·8 | 49·1 | 58·3 | + 1·0 | 114 | 0 | 6 | 1·14 | + 0·69 | 26·4 | −11·6 | 24 | − 8 |
| | Shields | 73 | 45 | 64·0 | 50·9 | 57·0 | + 0·8 | 105 | 0 | 5 | 1·28 | + 0·83 | * | * | * | * |
| | Scarborough 𝔐 | 73 | 47 | 65·7 | 50·6 | 57·6 | + 0·1 | 109 | 0 | 4 | 1·09 | + 0·61 | ? | ? | ? | ? |
| | York | | | | | | | | | | | | | | | |
| | Spurn Head | 69 | 52 | 64·3 | 53·7 | 58·6 | + 0·9 | 116 | 0 | 7 | 0·89 | + 0·54 | * | * | * | * |
| 3. ENGLAND, E. | Hillington 𝔐 | 77 | 49 | 70·7 | 52·5 | 61·0 | + 2·1 | 133 | 0 | 5 | 0·68 | + 0·16 | 46·1 | + 2·6 | 40 | + 3 |
| | Yarmouth | 74 | 49 | 66·1 | 53·4 | 59·3 | + 0·9 | 121 | 0 | 4 | 0·91 | + 0·45 | * | * | * | * |
| | Geldeston | 78 | 46 | 69·5 | 51·4 | 59·8 | + 1·3 | 125 | 0 | 3 | 1·06 | + 0·64 | 47·4 | + 0·2 | 41 | 0 |
| | Cambridge | | | | | | | | | | | | 37·6 | − 6·4 | 33 | − 5 |
| | Felixstowe | 78 | 50 | 63·3 | 53·9 | 61·1 | + 2·8 | 134 | * 0 | 3 | 1·28 | ? | 53·6 | ? | 47 | ? |
| | Rothamsted | 78 | 48 | 70·5 | 52·7 | 61·0 | + 2·1 | 133 | 0 | 4 | 1·20 | + 0·68 | 42·1 | − 2·6 | 37 | − 1 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 74 | 47 | 70·1 | 52·1 | 60·5 | + 1·6 | 130 | 0 | 4 | 0·99 | + 0·47 | * | * | * | * |
| | Loughborough | 75 | 48 | 70·4 | 53·4 | 61·3 | + 1·2 | 135 | 0 | 5 | 1·04 | + 0·54 | * | * | * | * |
| | Stamford (Duddington) | 77 | 47 | 71·0 | 51·9 | 60·8 | + 1·4 | 132 | 0 | 3 | 0·78 | + 0·36 | * | * | * | * |
| | Cheadle 𝔐 | 69 | 44 | 65·2 | 51·7 | 58·0 | + 1·6 | 112 | 0 | 4 | 2·09 | + 1·39 | * | * | * | * |
| | Shirley (near Solihull) | 74 | 45 | 68·6 | 52·4 | 59·9 | + 1·2 | 125 | 0 | 6 | 1·41 | ? | * | * | * | * |
| | Churchstoke 𝔐 | 72 | 47 | 67·2 | 52·7 | 59·5 | + 2·7 | 123 | 0 | 6 | 1·31 | + 0·81 | 27·5 | −15·0 | 24 | −13 |
| | Hereford (Belmont) 𝔐 | 75 | 48 | 69·9 | 53·4 | 61·1 | + 1·7 | 134 | 0 | 4 | 0·39 | − 0·06 | * | * | * | * |
| | Cirencester | 75 | 49 | 70·1 | 52·4 | 60·6 | + 2·7 | 130 | 0 | 5 | 0·94 | + 0·40 | 40·8 | − 2·7 | 35 | − 2 |
| | Oxford | 79 | 48 | 71·1 | 54·0 | 62·0 | + 2·4 | 140 | 0 | 3 | 0·86 | + 0·36 | 41·2 | − 2·1 | 36 | − 2 |
| 5. ENGLAND, S. | London | 82 | 50 | 74·3 | 55·0 | 64·0 | + 2·7 | 154 | 0 | 4 | 0·61 | + 0·14 | 40·4† | + 0·2† | 35† | 0† |
| | Cranley 𝔐 | 80 | 47 | 72·4 | 52·9 | 62·0 | + 1·8 | 140 | 0 | 4 | 1·16 | ? | * | * | * | * |
| | Dungeness | 72 | 47 | 66·7 | 54·3 | 60·1 | + 1·1 | 127 | 0 | 3 | 0·84 | + 0·51 | * | * | * | * |
| | Hastings (St. Leonards) | 73 | 51 | 67·9 | 54·1 | 60·5 | + 1·3 | 130 | 0 | 3 | 0·70 | + 0·33 | 56·2 | + 5·2 | 49 | + 4 |
| | Southampton | 82 | 50 | 72·5 | 54·5 | 62·9 | + 2·5 | 146 | 0 | 5 | 1·34 | + 0·89 | 47·0 | − 0·7 | 41 | − 1 |
| | Hurst Castle | 74 | 52 | 69·7 | 57·0 | 62·9 | + 3·2 | 146 | 0 | 3 | 0·48 | + 0·05 | * | * | * | * |
| | Shaftesbury 𝔐 | 74 | 49 | 68·5 | 52·2 | 59·8 | + 2·4 | 125 | 0 | 3 | 0·70 | + 0·10 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 66 | 46 | 62·0 | 49·3 | 55·5 | − 1·0 | 94 | 0 | 6 | 0·91 | − 0·17 | * | * | * | * |
| | Glasgow | 66 | 46 | 61·1 | 50·8 | 55·6 | − 1·0 | 95 | 0 | 5 | 2·89 | + 2·11 | 20·0 | −18·2 | 17 | −14 |
| | Glenlee 𝔖 | 66 | 43 | 62·7 | 48·9 | 55·3 | − 1·2 | 93 | 0 | 4 | 2·73 | + 2·03 | * | * | * | * |
| | Douglas (Isle of Man) | 66 | 42 | 63·8 | 51.1 | 57·0 | + 0·7 | 105 | 0 | 4 | 3·30 | + 2·84 | 22·8 | −27·8 | 19 | −24 |
| 7. ENGLAND, N.W. | Stonyhurst | 69 | 48 | 64·1 | 52·8 | 58·1 | + 0·5 | 113 | 0 | 5 | 2·07 | + 1·34 | 23·8 | −19·7 | 20 | −17 |
| | Blackpool 𝔐 | 72 | 52 | 66·0 | 54·8 | 60·0 | + 1·8 | 126 | 0 | 5 | 1·17 | + 0·72 | 27·4 | −16·6 | 23 | −14 |
| | Manchester (Prestwich) | 70 | 47 | 64·9 | 53·2 | 58·6 | + 1·2 | 116 | 0 | 4 | 1·62 | + 0·95 | 18·0 | ? | 15 | ? |
| | Liverpool Obsy. (Bidston) | 71 | 51 | 64·3 | 54·4 | 59·0 | + 0·3 | 119 | 0 | 5 | 1·86 | + 1·41 | 19·5 | ? | 17 | ? |
| | Llandudno 𝔐 | 70 | 54 | 65·6 | 56·4 | 60·7 | + 2·3 | 131 | 0 | 6 | 1·27 | + 0·87 | 17·3 | −26·9 | 15 | −23 |
| | Holyhead | 67 | 51 | 63·3 | 54.1 | 58·4 | + 0·5 | 115 | 0 | 5 | 0·51 | + 0·11 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 77 | 47 | 68·6 | 54·0 | 60·8 | + 2·6 | 132 | 0 | 5 | 1·01 | + 0·34 | * | * | * | * |
| | Pembroke | 63 | 54 | 60·7 | 54·9 | 57·6 | + 0·4 | 109 | 0 | 1 | 0·17 | − 0·23 | 24·0 | −30·7 | 21 | −25 |
| | Clifton | 75 | 53 | 68·9 | 56·0 | 62·0 | + 2·8 | 140 | 0 | 2 | 1·07 | + 0·59 | * | * | * | * |
| | Arlington (N. Devon) | 73 | 48 | 64·9 | 52·6 | 58·3 | + 1·1 | 114 | 0 | 6 | 1·29 | + 0·54 | * | * | * | * |
| | Cullompton 𝔐 | 75 | 49 | 69·5 | 55·1 | 61·8 | + 2·4 | 139 | 0 | 4 | 0·59 | − 0·07 | 37·5 | − 8·1 | 33 | − 7 |
| | Falmouth | 67 | 51 | 64·3 | 53·3 | 58·4 | − 0·1 | 115 | 0 | 4 | 0·54 | − 0·10 | 41·3 | −11·7 | 37 | − 8 |
| | Plymouth | 72 | 46 | 66 3 | 53·1 | 59·2 | − 0·9 | 120 | 0 | 2 | 0·66 | + 0·24 | 50·0 | + 2·8 | 44 | + 2 |
| | Prawle Point | 70 | 51 | 65·6 | 54·1 | 59·5 | + 2·0 | 123 | 0 | 3 | 0·51 | + 0·16 | * | * | * | * |
| 9. IRELAND, N. | Malin Head | 67 | 51 | 60·9 | 53·6 | 57·0 | + 1·2 | 105 | 0 | 5 | 0·89 | ? | * | * | * | * |
| | Londonderry | 72 | 51 | 65·9 | 53·1 | 59·1 | + 1·5 | 120 | 0 | 6 | 1·13 | + 0·63 | * | * | * | * |
| | Edenfel (Omagh) | 68 | 50 | 63·7 | 54·0 | 58·5 | + 2·3 | 116 | 0 | 6 | 2·48 | + 1·93 | * | * | * | * |
| | Belmullet | 63 | 52 | 60·6 | 53·1 | 56·6 | − 0·8 | 102 | 0 | 7 | 1·63 | + 1·01 | * | * | * | * |
| | Markree Castle | 72 | 51 | 64·0 | 52·7 | 58·0 | + 2·5 | 112 | 0 | 7 | 3·03 | + 2·34 | 8·9 | −29·3 | 8 | −24 |
| | Armagh | 69 | 48 | 64·6 | 52·7 | 58·2 | + 1·3 | 113 | 0 | 6 | 1·48 | + 0·86 | 13·2 | −27·2 | 11 | −23 |
| | Donaghadee | 68 | 47 | 60·9 | 51·4 | 55·8 | − 0·9 | 97 | 0 | 6 | 1·31 | + 0·51 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND S. | Dublin | 74 | 49 | 68·2 | 55·3 | 61·5 | + 2·3 | 137 | 0 | 5 | 0·49 | + 0·13 | 20·4 | -23·6 | 18 | −19 |
| | Parsonstown | 71 | 47 | 65·6 | 54·0 | 59·4 | + 2·0 | 122 | 0 | 6 | 0·44 | − 0·01 | 17·3 | −21·0 | 15 | −19 |
| | Kilkenny | 72 | 43 | 66·9 | 54·3 | 60·2 | + 2·1 | 127 | 0 | 5 | 0·53 | + 0·01 | * | * | * | * |
| | Roche's Point | 72 | 52 | 65·1 | 55·1 | 59·8 | + 0·9 | 125 | 0 | 3 | 0·56 | − 0·12 | * | * | * | * |
| | Valencia | 64 | 53 | 61·4 | 55·0 | 58·0 | + 0·1 | 112 | 0 | 6 | 1·54 | + 0·63 | 14·1 | −30·9 | 12 | −27 |
| | Killarney | 69 | 49 | 64·2 | 53·2 | 58·3 | + 1·1 | 114 | 0 | 4 | 0·79 | ? | * | * | * | * |
| | Foynes | 65 | 46 | 61·9 | 53·0 | 57·1 | − 0·1 | 106 | 0 | 6 | 1·18 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 66 | 54 | 63·7 | 55·7 | 59·4 | + 0·9 | 122 | 0 | 4 | 0·52 | + 0·12 | 28·5 | ? | 25 | ? |
| | Jersey | 77 | 55 | 63·4 | 56·1 | 61·8 | + 1·3 | 139 | 0 | 2 | 0·44 | + 0·06 | 65·3 | +15·3 | 58 | + 9 |

Stations marked 𝔐 are in connection with the Royal Meteorological Society, and those marked 𝔖 with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

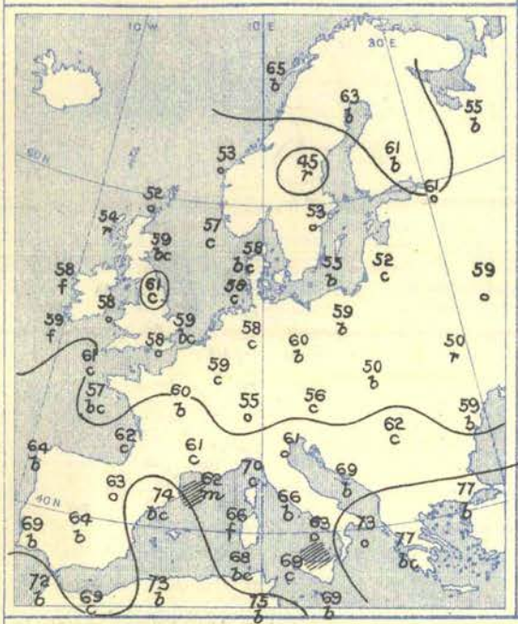
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 25th June.

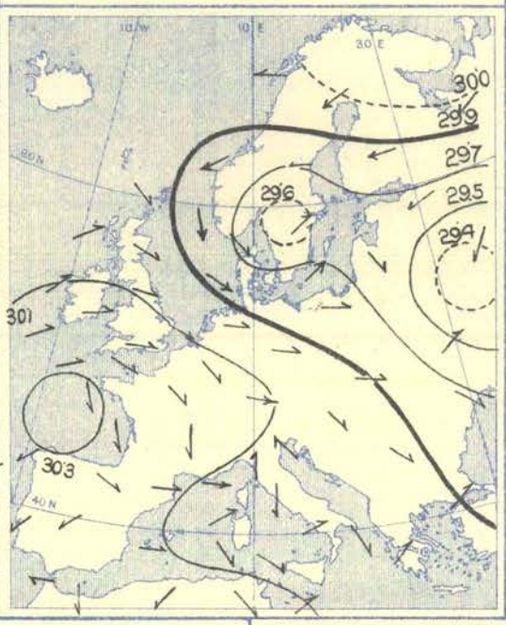
### Temperature and Weather.

8 a.m.

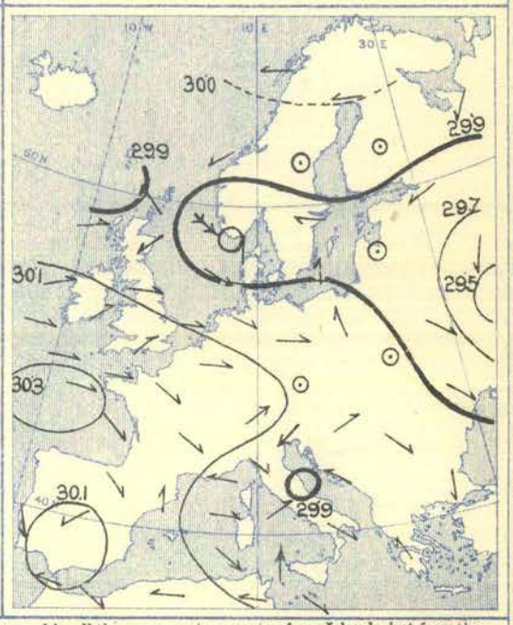


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning cloudy or dull over the greater part of our Islands, with fog on the west coasts of Ireland, and rain at Stornoway and Parsonstown. Fine over the Continent as a whole, but dull in several parts of Germany, Denmark, and the southern parts of Scandinavia, with rain in places. Showers falling later in many parts of the United Kingdom, and heavy rain at the Adriatic stations. Thunderstorm occurring at Nice in afternoon.

*Temperature* risen in most parts of our Islands, changed rather irregularly on the Continent. Morning readings highest, 77° at Patras and Constantinople, and 75° at Athens and Sfax; above 65° over southern Europe generally, and above 60° over Finland and the north of Scandinavia. Lowest, 45° at Hernösand, and 50° at Hangö, Helsingfors, Lemberg and Kiev. Rising during day to between 65° and 70° in most parts of the United Kingdom, and to 72° at Roche's Point. Exceeding 80° over the Spanish Peninsula and southern Italy and reaching 90° at Madrid and San Fernando.

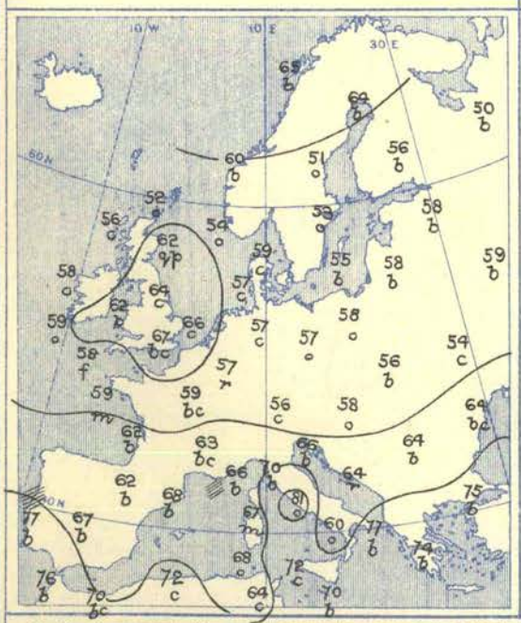
*Wind* light from the South-Westward in all the more western parts of our Islands, but from the Westward or North-Westward on our east coasts and also over France, Germany, Austria, and the Netherlands. Strong from the latter quarters on the eastern shores of the North Sea; Easterly or North-Easterly over the northern parts of Scandinavia and Russia; South-Westerly in the south of Sweden. Variable in Italy; Easterly or North-Easterly over the Spanish Peninsula. No important change occurring over western Europe during day.

*Barometer* highest, 30·3 ins. and upwards over the Bay of Biscay; 30·0 ins. and upwards in an anticyclone covering the greater part of western Europe. Lowest, 29·4 ins. and less in a depression over central Russia; 29·6 ins. and less in another disturbance over the south of Sweden. Russian depression subsequently passing eastwards, but Swedish disturbance moving slowly westwards. New, but shallow, depression appearing off the north of Scotland.

## Monday, 26th June.

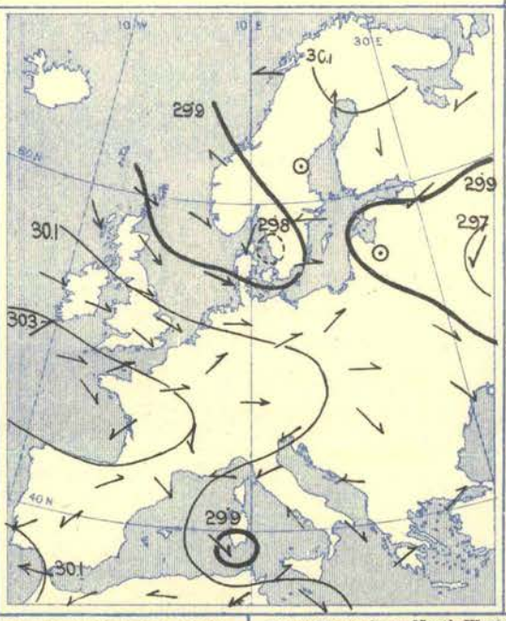
### Temperature and Weather.

8 a.m.

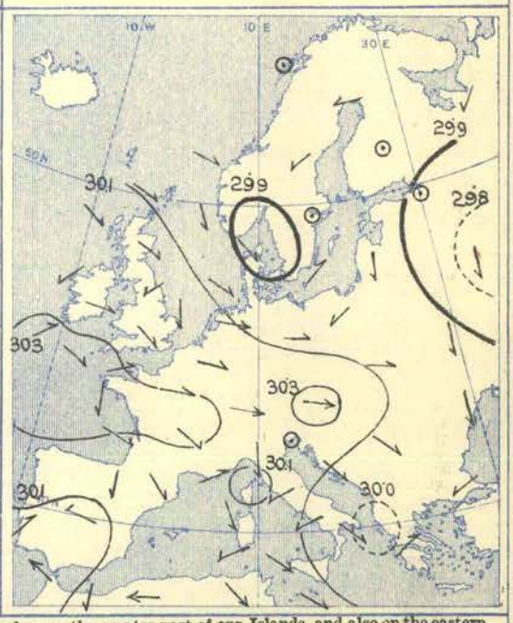


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair over the greater part of our Islands, but showery in a few places. Cloudy or dull over central Europe and also over some parts of Italy and the Adriatic, with rain at Brussels, Copenhagen, Cracow and Lesina; fine and bright in most other parts of the Continent. No important change occurring over western Europe during day, but heavy rain falling over southern Italy and at Malta.

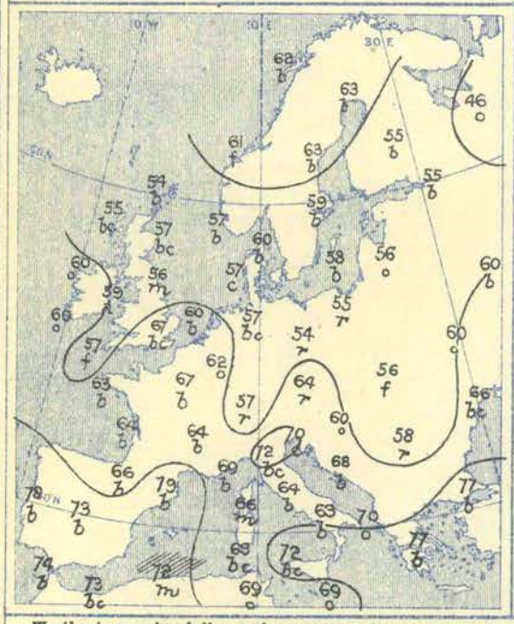
*Temperature* risen in most places, but fallen at several of the central and southern stations. Morning readings highest, 81° at Rome, and 77° at Lisbon and Brindisi; above 65° over southern Europe generally, and also in some parts of Great Britain. Lowest, (1) 51° at Hernösand, and 53° at Stockholm and Hangö; (2) 52° at Sumburgh Head, and 54° at Skudesnaes. Rising during day to between 70° and 75° in many parts of Great Britain and France; exceeding 80° over southern Europe, the highest reading of all being 93° at Madrid and Oporto.

*Wind* Westerly or North-Westerly over the greater part of our Islands, and also on the eastern shores of the North Sea; light or moderate in force generally, but strong at Wick and Fanö; Easterly or South-Easterly over the northern parts of Scandinavia. North-Easterly over northern Russia; North-Westerly in the south of that country and in Austria; Westerly in Germany. Easterly or North-Easterly over the Spanish Peninsula, northern Italy and the southern parts of France; South-Westerly or Westerly over Greece and southern Italy. No important change occurring over western Europe during day.

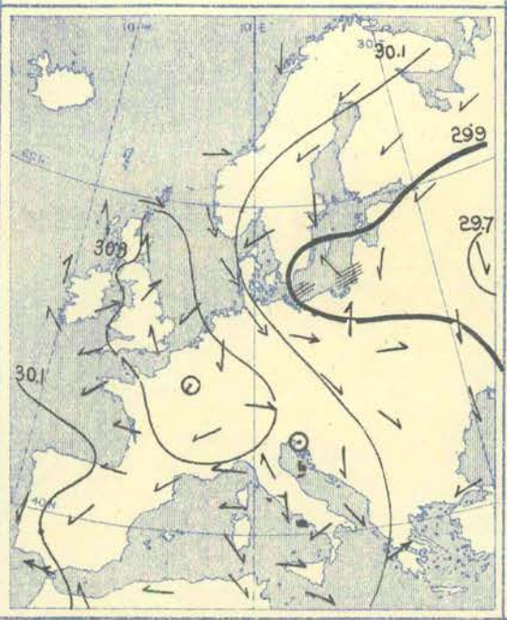
*Barometer* highest, 30·3 ins. and upwards in an anticyclone lying over the Bay of Biscay, the extreme south-west of our Islands and the western and central parts of France, 30·1 ins. and upwards in another system over Lapland. Lowest, 29·7 ins. and less in a depression over central Russia; 29·9 ins. and less in two other systems—one lying over Denmark, the south of Norway and the northern parts of the North Sea, and the other off the Sardinian coasts. Anticyclone over Bay of Biscay spreading slowly northwards during day, depressions over northern and central Europe moving eastwards and partially filling up.

## Tuesday, 27th June.

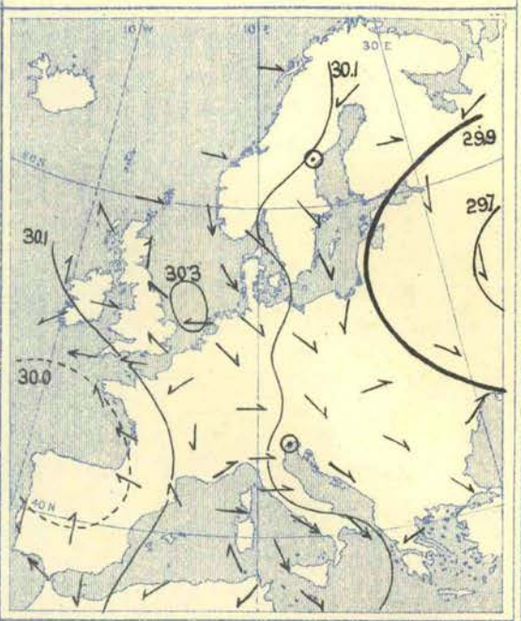
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning dull over the western and central parts of the United Kingdom, with mist or fog in many places. Fine on our northern, eastern and southern coasts, as well as over France, southern Europe generally, Scandinavia and northern Russia. Dull over the central parts of the Continent, with rain at several of the German and Austrian stations. Rain falling later in the west and north of our Islands generally; heavily in Ireland. Thunder and lightning occurring over the western parts of the Channel.

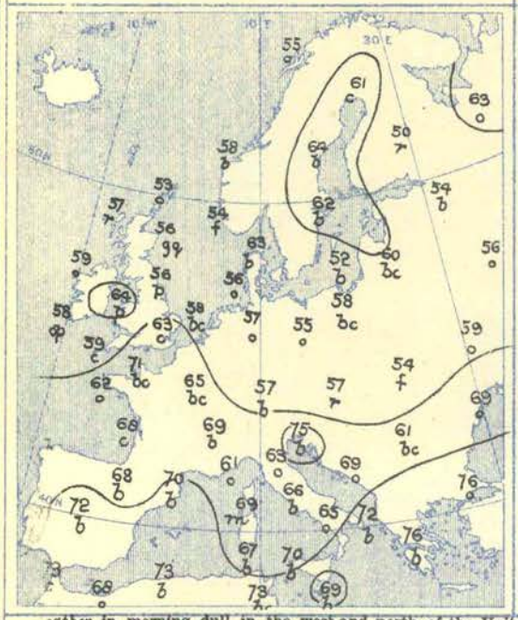
*Temperature* fallen in most parts of the United Kingdom, but risen elsewhere. Morning readings highest, 79° at Barcelona, 78° at Lisbon, and 77° at Patras and Constantinople; above 65° at some of the English stations, and above 60° in the northern parts of Scandinavia. Lowest, (1) 46° at Archangel, and 49° at Hangö; (2) 54° at Sumburgh Head and Donaghadee. Rising during day to between 70° and 75° at many of the English stations, and to 77° at Jersey; exceeding 80° in most parts of France and southern Europe, and reaching 96° at Madrid.

*Wind* light from the Southward (South-East to South-West) in the west and north of our Islands, but from the North-Eastward on our eastern and southern coasts, and from the Eastward over the greater part of France. North-Easterly over the northern parts of Russia and Scandinavia; North-Westerly over Denmark, the south of Scandinavia, and the whole of central and eastern Europe; variable over the Spanish Peninsula and the Mediterranean. Subsequently backing to the Eastward in the south of Ireland. No important change occurring elsewhere.

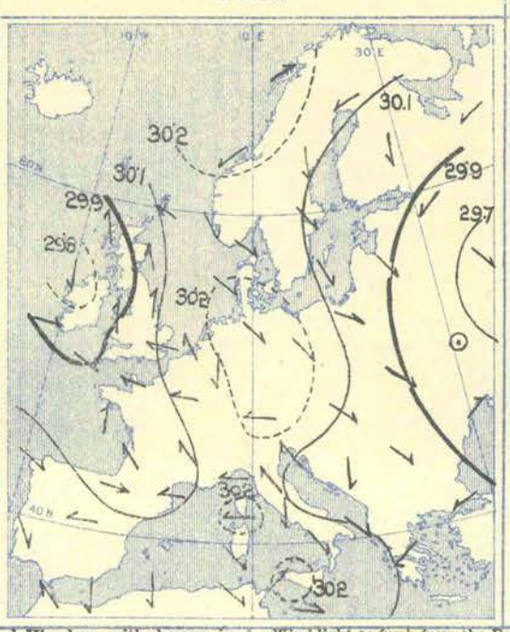
*Barometer* highest, 30·2 ins. to 30·3 ins. and upwards in an anticyclone covering the greater part of western and southern Europe. Lowest, 29·7 ins. and less in a large, but shallow, depression over central Russia. Anticyclone beginning to break up later, and large shallow depression approaching our Islands from the south-westward.

## Wednesday, 28th June.

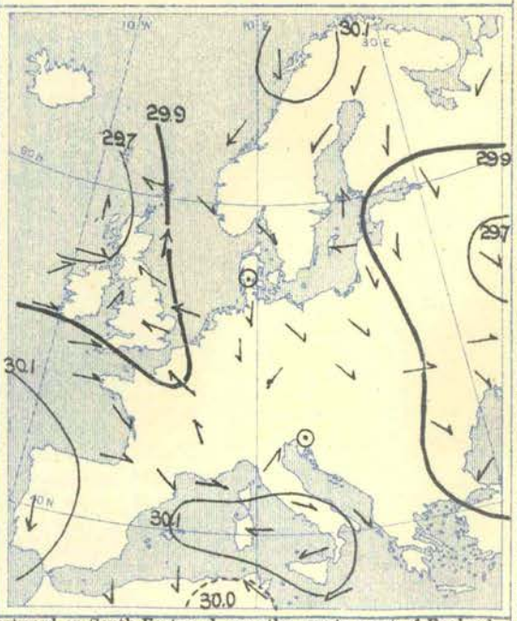
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning dull in the west and north of the United Kingdom, with showers in several places and a thunderstorm at Donaghadee. Fine in the south-east of England, as well as over Belgium, France, western Germany, and the greater part of southern Europe. Fine also over Scandinavia and the Baltic, but dull in many of the eastern and central countries, with rain at Kuopio and Vienna. Rain falling later over nearly the whole of our Islands, France and the Netherlands, with thunderstorms at most of the English stations, as well as at Karlstad, Cape Gris Nez, Biarritz, and Lyons.

*Temperature* fallen in many parts of Great Britain and central Europe, risen elsewhere. Morning readings highest, 77° at Barcelona, 76° at Patras and Constantinople, and 75° at Trieste; above 65° in most parts of France and southern Europe, and above 60° in Sweden and Denmark. Lowest, (1) 50° at Kuopio, 52° at Wisby, and 54° at St. Petersburg: (2) 53° at Sumburgh Head and Wick. Daily maxima below 60° on some parts of our north-west, north and east coasts, but thermometer exceeding 75° at some stations in the south of England; exceeding 80° over southern Europe generally, and reaching 90° at Limoges.

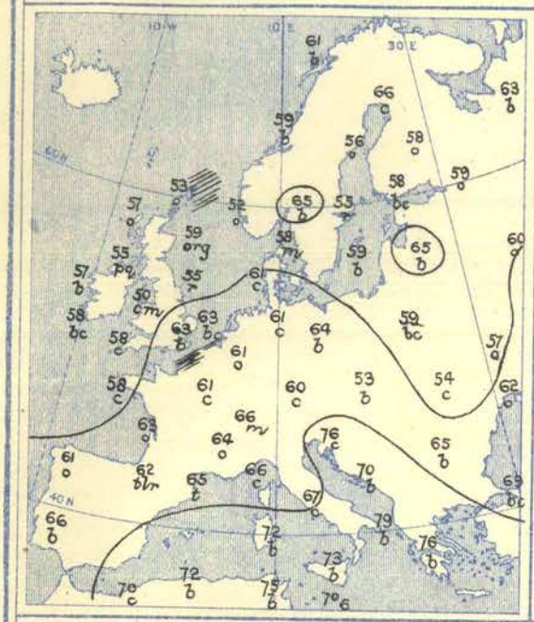
*Wind* light to fresh from the Eastward or South-Eastward over the greater part of England and France, and light from the Southward or South-Eastward in Scotland; Westerly or North-Westerly on our extreme south-west coasts. Northerly (North-East to North-West) over northern and central Europe, and also over Italy, but Southerly or South-Westerly over Greece and the south of Russia. Variable over Spain and the Mediterranean; Northerly in Portugal. Subsequently shifting to the Westward or North-Westward over the Bay of Biscay and the western parts of the Channel.

*Barometer* highest, 30·2 ins. and upwards (1) over the northern parts of Norway, (2) over Germany and Holland, (3) over the north-west of Spain, (4) over Corsica, and (5) over Sicily. Lowest, 29·7 ins. and less in a large shallow depression over central Russia; 29·8 ins. and less in another disturbance with its centre off the north-west of Ireland (small secondaries lying over our south-west coasts and the west of France). Depression in north-west subsequently moving northwards. Secondary systems advancing eastwards and north eastwards across England.

## Thursday, 29th June.

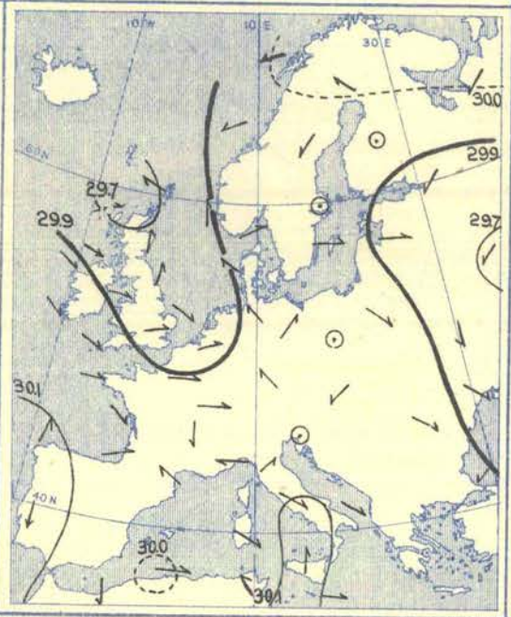
### Temperature and Weather.

8 a.m.

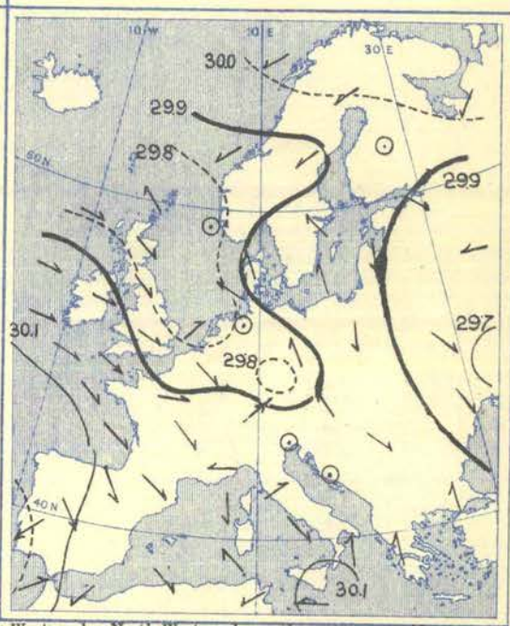


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine in all the more southern parts of our Islands, as well as in most of the Continental countries, but dull in the southern parts of France, with thunderstorms at Biarritz and Perpignan. Dull over the northern parts of the United Kingdom, with rain or passing showers in many places. Rain falling later in the north and east of our Islands, and also in Sweden, Germany and the south of France—heavily in places. Thunderstorms occurring in the north and east of England, as well as at Karlstadt, Cuxhaven, Algiers and several stations in the south of France.

*Temperature* changed very irregularly. Morning readings highest, 79° at Brindisi, 78° at Palma, and 77° at Athens; above 65° in most parts of southern Europe, and also in Lapland. Lowest, (1) 51° at Breslau, and 53° at Vienna; (2) 53° at Sumburgh Head, Wick and Aberdeen. Rising during day to 65° and upwards in many parts of Great Britain, to 70° and upwards in the south of England, and to 75° in London. Exceeding 75° in some parts of France and Germany, and exceeding 80° in Spain and Italy.

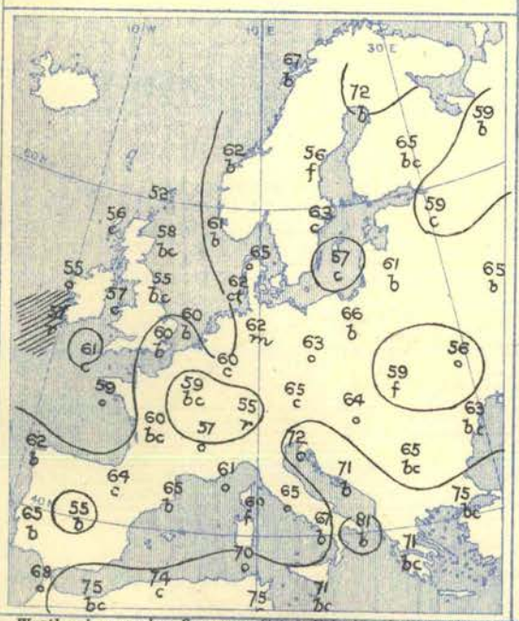
*Wind* light to moderate from the Westward or North-Westward over the greater part of Ireland England and France, but Easterly in the extreme south of France. Light from the Southward or South-Westward over Scotland, and from the South-Eastward on the eastern shores of the North Sea, Easterly in the northern parts of Scandinavia, Northerly in Russia, calm or variable over Austria and Italy. Subsequently veering to the Westward or North-Westward in Scotland; no important change occurring elsewhere.

*Barometer* highest, 30·1 ins. and upwards over the western parts of the Spanish Peninsula, and also over the central and southern parts of Italy; 30·0 ins. and upwards in the extreme north of Russia and Scandinavia. Lowest, 29·7 ins. and less in two depressions,—one lying off the north of Scotland and the other over central Russia, 29·8 ins. and less in a secondary hollow over the north and east of England and the adjacent parts of the North Sea. Scotch depression and secondary moving north-eastwards later, and barometer rising over western Europe generally.

## Friday, 30th June.

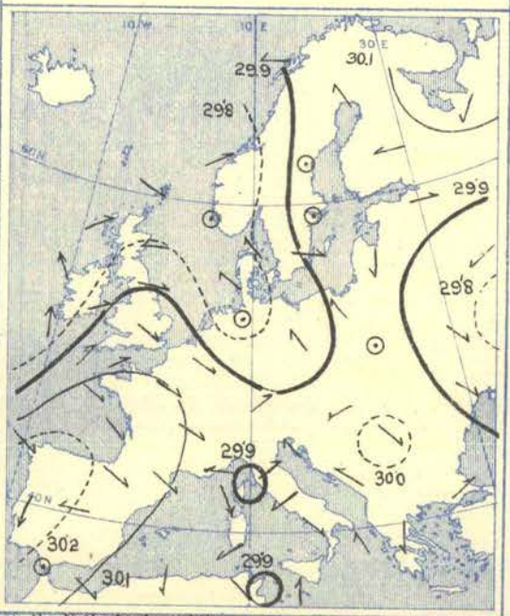
### Temperature and Weather.

8 a.m.

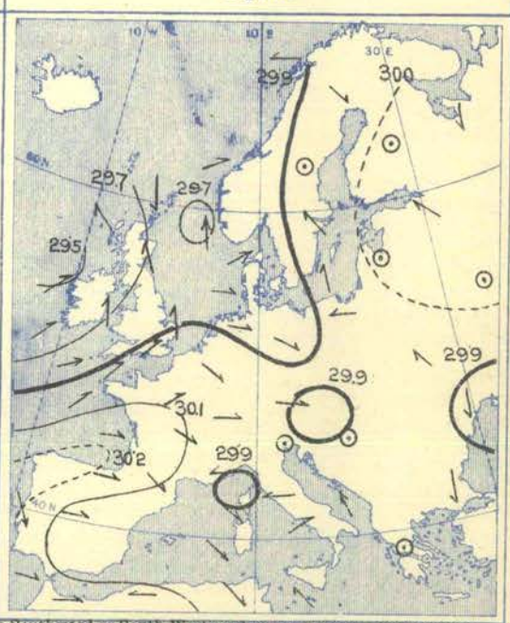


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over Great Britain, the west of Norway, the Netherlands, and the greater part of France and southern Europe. Dull in Ireland, with rain at Valencia; cloudy or dull also over Denmark, north Germany, and the south of Scandinavia, with thunder at Skudesnaes and Fanö. Rain spreading later from the westward over nearly the whole of north-western Europe, with thunder and lightning in the south of England. Heavy rain falling over northern Italy, and thunderstorm occurring at Nice.

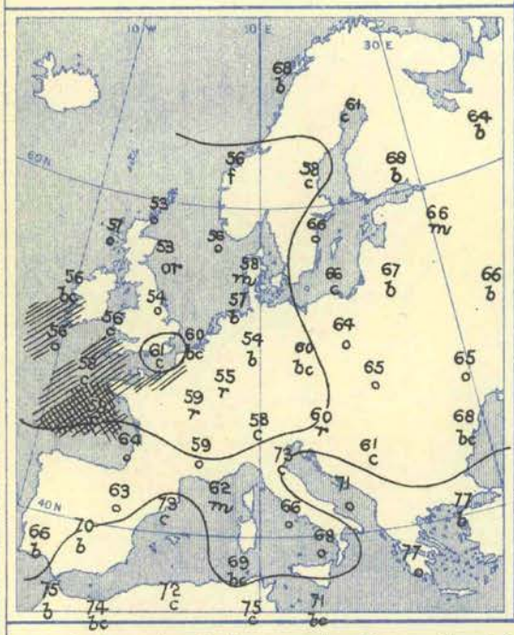
*Temperature* fallen in most of the western and southern countries, but risen elsewhere. Morning readings highest, 81° at Brindisi, and 75° at Nemours, Sfax, and Constantinople; above 65° in most parts of southern Europe, and also in the north of Scandinavia. Lowest, 52° at Sumburgh Head, and 55° at Shields, Belmullet, and Donaghadee. Rising during day to 65° and upwards in many parts of Great Britain, to 70° at Loughborough, and to 73° in London. Exceeding 75° over southern Europe generally, the highest reading of all being 86° at Madrid.

*Wind* moderate to fresh from the Southward or South-Westward on our western and extreme northern coasts. Light from the Westward over the eastern and central parts of Great Britain, and from the North-Westward over France and the Netherlands; South-Easterly over Denmark and north Germany; variable over Russia, Austria, and Italy, but South-Easterly over the Adriatic. Northerly to Easterly over the Spanish Peninsula. Subsequently backing to the Westward in France, and to the Southward or South-Eastward in the eastern parts of the United Kingdom. Veering to the Westward in Denmark and north Germany.

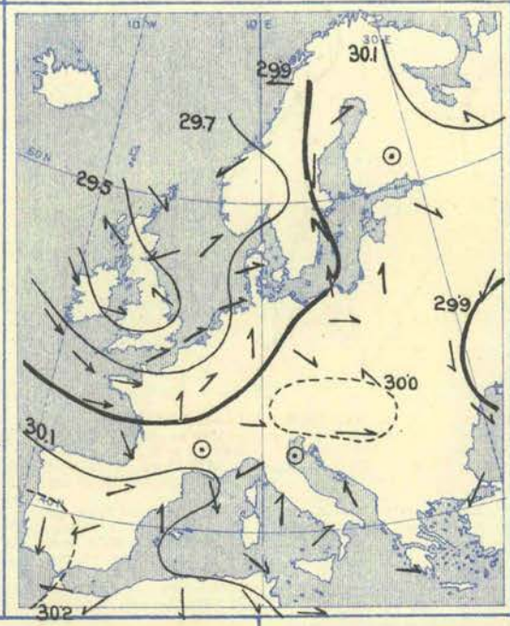
*Barometer* highest, 30·1 ins. to 30·2 ins. in an anticyclone lying over France and the Spanish Peninsula; 30·0 ins. to 30·1 ins. and upwards in another system over northern Russia. Lowest, 29·8 ins. and less in three depressions—one lying off the west of Ireland, another over Denmark and the eastern parts of the North Sea, and the third over the south of Russia. Depression off our western coasts subsequently advancing steadily eastwards; Danish disturbance also moving eastwards, but dispersing.

## Saturday, 1st July.

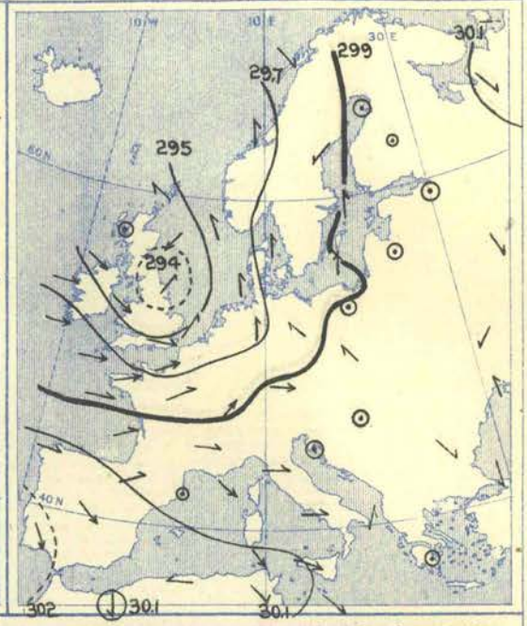
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy over western Europe with rain in many parts of our Islands and France. Fine over Denmark, north Germany, and northern and central Russia, as well as over Spain, northern Italy and the extreme south of France. Cloudy or dull over Austria and the southern parts of Russia and Italy. Rain falling during day in most parts of western and central Europe. Thunderstorm occurring at Yarmouth and Paris, and also at Moscow; thunder heard at Spurn Head, Donaghadee and Oxford.

*Temperature* fallen in most of the western and central countries. Morning readings highest, 77° at Patras and Constantinople, 76° at Athens, and 75° at San Fernando and Sfax; above 65° over southern Europe generally, as well as at several of the Russian and Scandinavian stations. Lowest, 52° at Malin Head, 53° at Sumburgh Head and Aberdeen, and 54° at Shields and Donaghadee. Daily maxima below 60° on several parts of our own western and northern coasts, and below 65° at all stations excepting those in the eastern and central parts of England. Thermometer exceeding 70° over central France, and exceeding 80° in many parts of southern Europe, the highest reading of all being 93° at Madrid.

*Wind* strong from the Westward or North-Westward on our own south and south-west coasts, and also in the north and west of France; moderate from the South-Westward or Southward over the eastern and central parts of England, the Netherlands and Denmark; light to moderate from the South-Eastward or Eastward over the northern parts of our Islands, and also in Scandinavia. Variable in Russia and Italy, and also over the Spanish Peninsula; light from the Westward in Austria. Subsequently increasing to a gale from the Westward in the English Channel; no decided change occurring elsewhere.

*Barometer* highest, 30·1 ins. to 30·2 ins. and upwards in an anticyclone lying over the Spanish Peninsula and Algeria, and also in another system over the extreme north of Russia. Lowest, 29·5 ins. and less in a large depression lying over the northern and central parts of the United Kingdom; 29·9 ins. and less in a shallow system over the south of Russia. Depression over our Islands moving slowly eastwards during day, and barometer rising again on all our western coasts.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇛ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

## GENERAL NOTES.

At the commencement of the week a large anticyclone lay over the greater part of western and south-western Europe, while two well marked depressions existed in the north and east, one over the south of Sweden and the other over central Russia. The former of these disturbances subsequently passed away to the eastward, while the latter moved very slowly, first in a westerly, and afterwards in a southerly direction, the system in the meantime gradually dispersing.

After the 26th the anticyclone drifted slowly eastwards or north-eastwards, and on the 27th and 28th a depression moved northwards along our own extreme western coasts, while some "V"-shaped secondary systems passed north-eastwards across England, the disturbances occasioning considerable falls of rain over western Europe generally, and thunderstorms over the whole of England, as well as in neighbouring parts of the Continent. On the 30th another depression appeared off our extreme north-west coasts, and at the close of the week this was passing eastwards over the more northern parts of the United Kingdom. During its progress, rain again fell in nearly all the western countries, while a considerable increase of wind took place on our own western and southern coasts, with a slight gale in the English Channel.

## BRIGHT SUNSHINE Values for the Week, in addition to those found on page 152.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 60·0 | ? | 48 | ? | WATERGATE (Emsworth) | 37·0 | ? | 32 | ? |
| STRATHPEFFER SPA | 28·7 | −10·1 | 23 | − 8 | BRIGHTON | 59·0 | + 7·2 | 52 | + 6 |
| EDINBURGH | ? | ? | ? | ? | WORTHING | 57·0 | ? | 50 | ? |
| MORPETH | 29·6 | ? | 25 | ? | BOGNOR | 48·3* | ? | 42* | ? |
| NEWCASTLE-ON-TYNE | 23·1 | ? | 19 | ? | EASTBOURNE | 61·5 | +11·6 | 54 | + 9 |
| OSWALDKIRK (Yorkshire) | 31·6 | − 4·3 | 27 | − 4 | VENTNOR HOSPITAL | 53·7 | ? | 47 | ? |
| LOWESTOFT | 50·9 | ? | 44 | ? | SOUTHPORT | 21·9 | ? | 19 | ? |
| HOLLESLEY BAY | 57·0 | ? | 50 | ? | COLWYN BAY | | ? | | ? |
| SHEFFIELD | 23·4 | ? | 20 | ? | ABERDOVEY | 21·9* | ? | 19* | ? |
| WORKSOP | 26·5 | − 8·6 | 23 | − 8 | TENBY | 25·7 | −28·5 | 22 | −25 |
| THURCASTON (Leicestershire) | 24·3 | −13·0 | 21 | −12 | NEWQUAY | | | | |
| MARGATE | 48·7 | + 8·1 | 43 | + 6 | TORQUAY | 57·4 | + 4·4 | 51 | + 3 |
| WESTBOURNE (Emsworth) | 46·5* | − 0·7 | 41* | − 1 | GUERNSEY | 75·0* | +19·5 | 67* | +18 |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD. LITH. 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

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VOL. XVI. NO. 27.] *Third Series.* WEEK ENDING SATURDAY, JULY 8TH, 1899. [*Price 6d.* *Annual Subscription post paid* £1 10s. 0d.

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 158.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 73 | 43 | 62·5 | 50·7 | 56·2 | 2 above | 99 | +21 | 0 | 0 | 858 | +119 | 617 | − 6 |
| | 1. SCOTLAND, EAST | 76 | 37 | 66·9 | 50·6 | 58·2 | 2 above | 113 | +17 | 0 | 0 | 988 | + 61 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 76 | 49 | 66·5 | 53·5 | 59·5 | 2 above | 123 | +21 | 0 | 0 | 1113 | +172 | 456 | − 93 |
| | 3. ENGLAND, EAST | 80 | 48 | 68·2 | 53·6 | 60·4 | 1 above | 129 | +15 | 0 | 0 | 1309 | +157 | 421 | −196 |
| | 4. MIDLAND COUNTIES | 81 | 44 | 69·2 | 52·0 | 60·0 | 1 above | 126 | +13 | 0 | 0 | 1342 | +151 | 478 | −141 |
| | 5. ENGLAND SOUTH | 82 | 48 | 70·8 | 53·7 | 61·6 | 1 above | 137 | +16 | 0 | 0 | 1501 | +237 | 294 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 74 | 44 | 65·6 | 52·6 | 58·7 | 2 above | 117 | +20 | 0 | 0 | 1083 | + 91 | 413 | − 49 |
| | 7. ENGLAND, N.W. | 73 | 45 | 64·9 | 53·7 | 59·0 | 0 (average) | 119 | +12 | 0 | 0 | 1247 | +195 | 313 | −146 |
| | 8. ENGLAND, S.W. | 76 | 48 | 66·4 | 53·5 | 59·5 | 0 (average) | 123 | +11 | 0 | 0 | 1456 | +235 | 240 | −121 |
| | 9. IRELAND, NORTH | 76 | 49 | 64·8 | 53·1 | 58·5 | 2 above | 116 | +16 | 0 | 0 | 1200 | +114 | 323 | − 72 |
| | 10. IRELAND, SOUTH | 75 | 47 | 66·3 | 54·1 | 59·8 | 1 above | 125 | +16 | 0 | 0 | 1481 | +218 | 245 | − 54 |
| | —CHANNEL ISLANDS | 72 | 53 | 65·3 | 55·6 | 60·1 | 0 (average) | 127 | + 6 | 0 | 0 | 1779 | +401 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 158.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 4 | 4 | 3 less | 115 | − 5 | 23·1 | + 0·4 | 21 | −17 | 17 | −14 | 709 | + 25 | 28 | + 1 |
| | 1. SCOTLAND, EAST | 3 | 5 | 1 less | 108 | +11 | 17·3 | + 3·1 | 33 | − 5 | 28 | − 4 | 774* | + 38 | 32 | + 1 |
| | 2. ENGLAND, N.E. | 2 | 4 | 1 less | 97 | + 6 | 12·5 | + 0·9 | 49 | + 6 | 41 | + 5 | 759 | + 45 | 32 | + 2 |
| | 3. ENGLAND, EAST | 3 | 3 | 2 less | 89 | + 1 | 11·0 | − 0·5 | 43 | − 1 | 38 | − 1 | 985 | +112 | 40 | + 5 |
| | 4. MIDLAND COUNTIES | 2 | 2 | 3 less | 88 | + 1 | 13·8 | + 0·9 | 46 | + 7 | 40 | + 6 | 879 | +148 | 38 | + 6 |
| | 5. ENGLAND, SOUTH | 2 | 1 | 4 less | 77 | − 6 | 11·3 | − 1·6 | 54 | + 3 | 48 | + 2 | 1033 | +152 | 43 | + 7 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 3 | 2 | 5 less | 111 | + 8 | 25·7 | + 3·0 | 45 | + 2 | 38 | + 2 | 787 | + 15 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 2 | 2 | 4 less | 101 | + 8 | 17·6 | + 3·0 | 37 | − 4 | 31 | − 4 | 893 | +127 | 38 | + 6 |
| | 8. ENGLAND, S.W. | 3 | 1 | 5 less | 95 | + 1 | 20·5 | + 3·2 | 55 | + 5 | 48 | + 4 | 1016 | + 91 | 43 | + 5 |
| | 9. IRELAND, NORTH | 4 | 3 | 4 less | 118 | + 8 | 19·2 | + 2·5 | 24 | −14 | 21 | −11 | 805 | + 69 | 34 | + 3 |
| | 10. IRELAND, SOUTH | 4 | 3 | 4 less | 101 | + 1 | 21·5 | + 3·1 | 25 | −14 | 22 | −12 | 897 | + 66 | 38 | + 3 |
| | — CHANNEL ISLANDS | 2 | less than ½ | 4 less | 91 | −10 | 14·6 | 0·0 | 70 | +23 | 63 | +22 | 1128 | +135 | 50 | + 6 |

*Bright Sunshine* —Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was unsettled and rainy at the commencement of the period, but subsequently improved and became fine for a time in nearly all districts. Thunderstorms occurred in the north-west of England on Monday, and towards the end of the week they were experienced in many parts of Great Britain. The newspapers report that the thunderstorm at Canterbury on Saturday was very severe, and accompanied by unusually heavy hail.

*Temperature* was a little above the mean in most districts, but just equal to it in England N.W. and S.W. and in the Channel Islands. The highest of the maxima were registered on the 6th at most of the Irish stations, and on the 7th over Great Britain ; they ranged from 82° in England S., 81° in the Midland Counties, and 80° in England E., to 73° in England N.W. and Scotland E., and to 72° in the Channel Islands. The lowest of the minima were recorded during the earlier days or the middle of the period, and varied from 37° in Scotland E., and 43° in Scotland N., to 49° in England N.E. and Ireland N., and to 53° in the Channel Islands.

*Rainfall* was less than the mean in all our districts ; the fall over the greater part of England and in the Channel Islands was very slight.

*Bright Sunshine* exceeded the mean in most parts of England, but was very deficient in nearly all parts of Scotland and Ireland. The percentage of the possible duration ranged from 63 in the Channel Islands, and from 48 in England S. and S.W., to 22 or 21 in Ireland, and to 17 in Scotland N.

*Barometer and Wind.*—At the commencement of the week a well-defined depression was moving East-South-Eastwards over the North Sea to Germany, and the winds over the United Kingdom were rather strong from the North-Westward. In the rear of this disturbance an anticyclonic "ridge" spread slowly over our Islands from the South-Westward, causing the wind to become light in force and rather variable in direction. Towards the end of the week the anticyclone began to decrease in intensity, and local thunderstorm disturbances were formed in many parts of England and Scotland.

207 | 90 Wy. & S., Ltd.
913 | 70 7 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 157 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 62 | 46 | 59·3 | 50·0 | 54·3 | + 2·6 | 86 | 0 | 1 | 0·05 | − 0·44 | * | * | * | * |
| | Stornoway | 65 | 46 | 61·4 | 50·7 | 55·7 | + 2·1 | 96 | 0 | 3 | 0·07 | − 0·61 | 16·6 | −23·8 | 13 | −20 |
| | Wick | 68 | 43 | 63·6 | 48·9 | 55·7 | − 1·2 | 96 | 0 | 3 | 0·28 | − 0·24 | * | * | * | * |
| | Lairg Ⓢ | 73 | 47 | 65·7 | 49·7 | 57·1 | + 2·7 | 106 | 0 | 5 | 0·51 | − 0·09 | * | * | * | * |
| | Glencarron Ⓢ | 68 | 47 | 61·3 | 50·6 | 55·6 | + 0·8 | 95 | 0 | 5 | 0·94 | − 0·26 | * | * | * | * |
| | Fort Augustus Ⓢ | | | | | | | | 0 | | | | | | | |
| | Fort William Ⓢ | 69 | 52 | 63·6 | 54·0 | 58·5 | + 2·0 | 116 | 0 | 4 | 0·66 | − 0·41 | 27·7 | − 9·6 | 23 | − 9 |
| 1. SCOTLAND E. | Nairn | 69 | 47 | 64·0 | 50·3 | 56·7 | + 0·1 | 103 | 0 | 4 | 0·30 | − 0·18 | * | * | * | * |
| | Aberdeen | 72 | 48 | 65·1 | 51·9 | 58·0 | + 1·7 | 112 | 0 | 2 | 0·70 | + 0·12 | 42·8 | + 0·4 | 35 | 0 |
| | Braemar Ⓢ | 69 | 37 | 63·5 | 46·2 | 54·3 | 0·0 | 86 | 0 | 4 | 0·58 | − 0·10 | 23·0† | −15·5† | 19† | −13† |
| | Ochtertyre Ⓢ | 79 | 45 | 71·3 | 49·9 | 59·9 | + 2·4 | 125 | 0 | 3 | 0·16 | − 0·48 | * | * | * | * |
| | Leith | 76 | 49 | 69·6 | 53·7 | 61·1 | + 3·2 | 134 | 0 | 3 | 0·72 | + 0·23 | * | * | * | * |
| | Marchmont Ⓢ | 74 | 50 | 67·9 | 51·6 | 59·3 | + 3·1 | 121 | 0 | 3 | 0·36 | − 0·29 | 42·3 | + 2·3 | 35 | + 2 |
| 2. ENGLAND, N.E. | Alnwick Castle | 76 | 49 | 69·3 | 53·3 | 60·7 | + 4·2 | 131 | 0 | 1 | 0·15 | − 0·35 | * | * | * | * |
| | Durham | 75 | 49 | 69·3 | 52·3 | 60·0 | + 1·8 | 126 | 0 | 4 | 0·97 | + 0·45 | 42·6 | + 5·4 | 36 | + 4 |
| | Shields | 75 | 52 | 64·4 | 53·7 | 58·7 | + 1·8 | 117 | 0 | 4 | 0·37 | − 0·13 | * | * | * | * |
| | Scarborough Ⓜ | 74 | 50 | 65·6 | 53·0 | 58·9 | + 0·6 | 118 | 0 | 2 | 0·10 | − 0·42 | ? | ? | ? | ? |
| | Spurn Head | 74 | 53 | 63·9 | 55·0 | 59·1 | + 0·4 | 120 | 0 | 1 | 0·33 | − 0·03 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 79 | 51 | 70·2 | 53·8 | 61·4 | + 1·8 | 136 | 0 | 4 | 0·54 | − 0·04 | 40·9 | − 1·8 | 35 | + 2 |
| | Yarmouth | 65 | 53 | 62·4 | 54·1 | 58·0 | − 1·4 | 112 | 0 | 3 | 0·69 | + 0·19 | * | * | * | * |
| | Geldeston | 76 | 50 | 68·2 | 53·1 | 60·1 | + 0·7 | 127 | 0 | 2 | 0·18 | − 0·30 | 43·9 | − 2·4 | 39 | − 2 |
| | Cambridge | 80 | 49 | 71·8 | 53·3 | 61·9 | + 1·2 | 139 | 0 | 2 | 0·19 | − 0·35 | 37·7 | − 5·9 | 33 | − 5 |
| | Felixstowe | 76 | 51 | 67·0 | 54·0 | 60·1 | + 0·8 | 127 | 0 | 2 | 0·27 | ? | 40·3 | ? | 35 | ? |
| | Rothamsted | 77 | 48 | 69·3 | 53·4 | 60·8 | + 1·3 | 132 | 0 | 2 | 0·17 | − 0·39 | 49·3 | + 4·3 | 43 | + 4 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 78 | 48 | 70·6 | 53·6 | 61·5 | + 2·1 | 137 | 0 | 3 | 0·16 | − 0·40 | * | * | * | * |
| | Loughborough | 81 | 47 | 70·9 | 53·1 | 61·4 | + 0·8 | 136 | 0 | 2 | 0·63 | + 0·13 | * | * | * | * |
| | Stamford (Duddington) | 81 | 46 | 70·3 | 52·3 | 60·7 | + 0·4 | 131 | 0 | 4 | 0·20 | − 0·28 | * | * | * | * |
| | Cheadle Ⓜ | 75 | 48 | 66·2 | 52·1 | 58·7 | + 1·8 | 117 | 0 | 2 | 0·33 | − 0·39 | * | * | * | * |
| | Shirley (near Solihull) | 74 | 44 | 68·1 | 51·8 | 59·4 | 0·0 | 122 | 0 | 3 | 0·28 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 75 | 46 | 67·7 | 49·8 | 58·1 | + 0·7 | 113 | 0 | 1 | 0·03 | − 0·47 | 49·1 | + 8·1 | 42 | + 6 |
| | Hereford (Belmont) Ⓜ | 74 | 44 | 69·1 | 49·8 | 58·8 | − 1·1 | 118 | 0 | 3 | 0·15 | − 0·33 | * | * | * | * |
| | Cirencester | 78 | 47 | 68·9 | 51·7 | 59·7 | + 1·1 | 124 | 0 | 1 | 0·09 | − 0·51 | 56·0 | +13·6 | 49 | +12 |
| | Oxford | 81 | 48 | 71·4 | 53·7 | 61·9 | + 1·5 | 139 | 0 | 1 | 0·01 | − 0·52 | 55·7 | +13·1 | 49 | +12 |
| 5. ENGLAND, S. | London | 82 | 50 | 73·0 | 54·0 | 62·3 | + 0·9 | 146 | 0 | 2 | 0·05 | − 0·45 | 40·1† | + 0·9† | 35† | + 1† |
| | Cranley Ⓜ | 80 | 48 | 73·9 | 53·6 | 63·0 | + 2·1 | 147 | 0 | 2 | 0·11 | ? | * | * | * | * |
| | Dungeness | 69 | 50 | 67·0 | 53·9 | 60·0 | 0·0 | 126 | 0 | 2 | 0·10 | − 0·28 | * | * | * | * |
| | Hastings (St. Leonards) | 76 | 52 | 68·4 | 54·4 | 60·9 | + 1·1 | 132 | 0 | 2 | 0·03 | − 0·38 | 34·8 | −15·4 | 31 | −13 |
| | Southampton | 82 | 49 | 74·8 | 54·4 | 63·9 | + 2·6 | 153 | 0 | 1 | 0·02 | − 0·47 | 66·1 | +19·1 | 58 | +17 |
| | Portland Bill | 69 | ? | 65·0 | ? | ? | ? | ? | ? | 0 | — | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 75 | 48 | 67·8 | 51·7 | 59·2 | + 1·1 | 120 | 0 | 2 | 0·17 | − 0·48 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 69 | 52 | 63·3 | 53·7 | 58·2 | + 1·1 | 113 | 0 | 5 | 0·51 | − 0·64 | * | * | * | * |
| | Glasgow | 72 | 49 | 67·0 | 53·6 | 59·8 | + 2·8 | 125 | 0 | 2 | 0·21 | − 0·42 | 37·2 | + 0·2 | 31 | + 1 |
| | Glenlee Ⓢ | 74 | 44 | 67·3 | 51·6 | 58·9 | + 1·7 | 118 | 0 | 3 | 0·10 | − 0·66 | * | * | * | * |
| | Douglas (Isle of Man) | 68 | 51 | 64·8 | 51·6 | 57·7 | + 1·0 | 110 | 0 | 3 | 0·09 | − 0·41 | 51·8 | + 2·8 | 44 | + 2 |
| 7. ENGLAND, N.W. | Stonyhurst | 70 | 47 | 65·4 | 53·0 | 58·8 | + 0·6 | 118 | 0 | 3 | 0·65 | − 0·15 | 40·9 | − 1·1 | 35 | − 1 |
| | Blackpool Ⓜ | 68 | 52 | 65·4 | 54·3 | 59·5 | + 0·6 | 123 | 0 | 1 | 0·04 | − 0·46 | 32·2 | −10·8 | 27 | −10 |
| | Manchester (Prestwich) | 73 | 45 | 65·9 | 53·2 | 59·1 | + 1·4 | 120 | 0 | 2 | 0·28 | − 0·42 | 35·4 | ? | 30 | ? |
| | Liverpool Obsy. (Bidston) | 66 | 51 | 63·1 | 53·7 | 58·4 | − 0·8 | 115 | 0 | 4 | 0·15 | − 0·35 | 37·7 | ? | 33 | ? |
| | Llandudno Ⓜ | 73 | 52 | 66·9 | 54·9 | 60·5 | + 1·6 | 130 | 0 | 2 | 0·12 | − 0·35 | 42·7 | − 0·2 | 37 | 0 |
| | Holyhead | 66 | 51 | 62·9 | 53·1 | 57·7 | − 0·8 | 110 | 0 | 1 | 0·02 | − 0·43 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 76 | 48 | 69·1 | 52·0 | 60·0 | + 1·4 | 126 | 0 | 5 | 0·44 | − 0·31 | * | * | * | * |
| | Pembroke | 63 | 54 | 60·6 | 54·7 | 57·4 | − 0·6 | 108 | 0 | 3 | 0·08 | − 0·36 | 34·4 | −18·6 | 30 | −15 |
| | Clifton | 74 | 50 | 67·8 | 54·3 | 60·7 | + 0·9 | 131 | 0 | 2 | 0·11 | − 0·41 | * | * | * | * |
| | Arlington (N. Devon) | 69 | 49 | 65·0 | 51·7 | 57·9 | + 0·1 | 111 | 0 | 5 | 0·14 | − 0·70 | * | * | * | * |
| | Cullompton Ⓜ | 76 | 48 | 69·4 | 52·1 | 60·2 | + 0·0 | 127 | 0 | 2 | 0·05 | − 0·65 | 46·7 | + 2·7 | 41 | + 2 |
| | Falmouth | 71 | 52 | 65·5 | 55·3 | 60·0 | + 0·8 | 126 | 0 | 1 | 0·01 | − 0·67 | 74·5 | +22·5 | 67 | +22 |
| | Plymouth | 74 | 53 | 67·2 | 54·4 | 60·4 | − 0·3 | 129 | 0 | 1 | 0·05 | − 0·44 | 62·6 | +16·4 | 56 | +15 |
| 9. IRELAND, N. | Malin Head | 67 | 51 | 61·3 | 53·7 | 57·2 | + 0·7 | 106 | 0 | 1 | 0·03 | ? | * | * | * | * |
| | Londonderry | 73 | 51 | 68·5 | 52·8 | 60·1 | + 2·2 | 127 | 0 | 6 | 0·49 | − 0·08 | * | * | * | * |
| | Edenfel (Omagh) | 72 | 51 | 66·1 | 54·9 | 60·1 | + 3·7 | 127 | 0 | 4 | 0·13 | − 0·47 | * | * | * | * |
| | Belmullet | 64 | 50 | 60·6 | 52·9 | 56·5 | − 1·2 | 102 | 0 | 4 | 0·23 | − 0·45 | * | * | * | * |
| | Markree Castle | 73 | 49 | 65·9 | 51·6 | 58·3 | + 2·2 | 114 | 0 | 6 | 0·51 | − 0·23 | 25·6 | −10·4 | 22 | − 8 |
| | Armagh | 72 | 49 | 67·5 | 53·8 | 60·2 | + 2·9 | 127 | 0 | 3 | 0·05 | − 0·63 | 22·0 | −16·2 | 19 | −14 |
| | Donaghadee | 69 | 51 | 63·6 | 52·0 | 57·4 | + 0·2 | 108 | 0 | 3 | 0·47 | 0·00 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND S. | Dublin | 75 | 49 | 68·2 | 56·3 | 61·8 | + 2·1 | 139 | 0 | 4 | 0·33 | − 0·07 | 29·1 | −11·9 | 25 | − 9 |
| | Parsonstown | 73 | 47 | 67·1 | 52·3 | 59·2 | + 1·3 | 120 | 0 | 3 | 0·25 | − 0·23 | 21·9 | −13·5 | 19 | −12 |
| | Kilkenny | 75 | 50 | 68·3 | 55·1 | 61·2 | + 2·8 | 134 | 0 | 5 | 0·25 | − 0·29 | * | * | * | * |
| | Roche's Point | 69 | 50 | 65·3 | 54·4 | 59·5 | 0·0 | 123 | 0 | 2 | 0·13 | − 0·55 | * | * | * | * |
| | Valencia | 67 | 50 | 63·7 | 53·9 | 58·5 | + 0·2 | 116 | 0 | 6 | 0·34 | − 0·62 | 23·6 | −18·1 | 21 | −15 |
| | Killarney | 73 | 48 | 67·1 | 53·3 | 59·7 | + 2·0 | 124 | 0 | 3 | 0·18 | ? | * | * | * | * |
| | Foynes | 69 | 47 | 64·4 | 53·3 | 58·5 | + 0·9 | 116 | 0 | 3 | 0·27 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 70 | 53 | 64·6 | 55·4 | 59·7 | + 0·5 | 124 | 0 | 1 | 0·01 | − 0·44 | 55·2 | ? | 49 | ? |
| | Jersey | 72 | 53 | 66·0 | 55·7 | 60·5 | − 0·7 | 130 | 0 | 2 | 0·04 | − 0·37 | 74·2 | +20·6 | 67 | +19 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

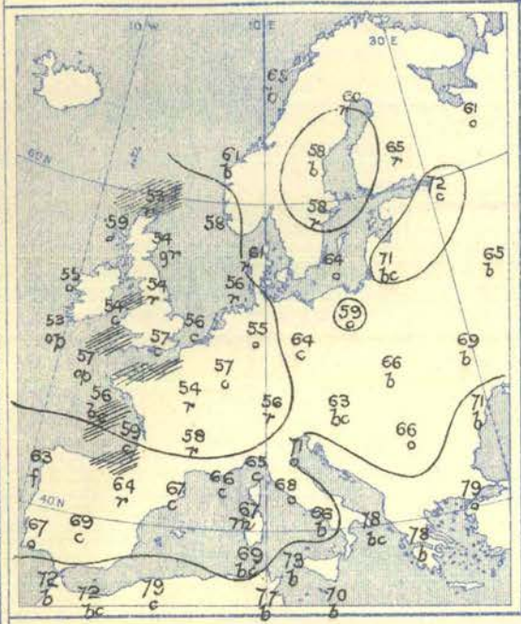
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

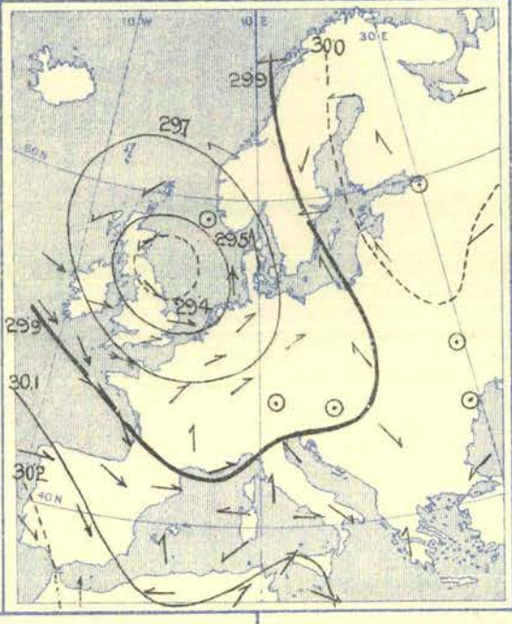
NOTE.—It will be seen that the Reports from York and Prawle Point have now ceased and that Portland Bill has taken the place of Hurst Castle.

## Sunday, 2nd July.

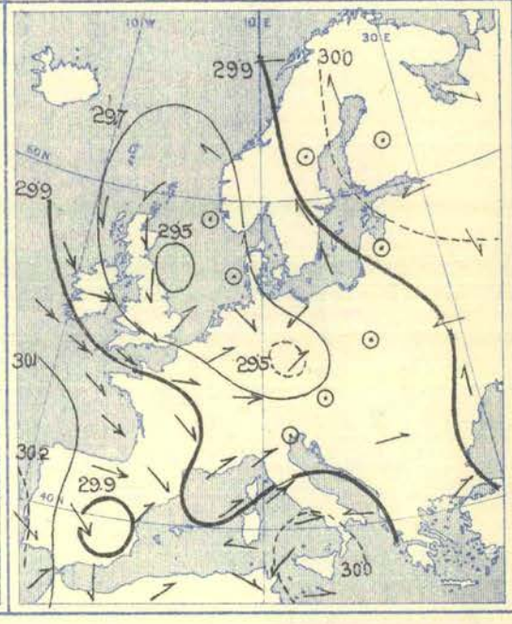
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over the central and southern parts of Russia; changeable and unsettled as a whole elsewhere, with rain in many places, especially over the north-eastern parts of Great Britain. Rain later in various parts of the latter regions—considerable over the central parts of Europe; thunder and lightning at Lyons.

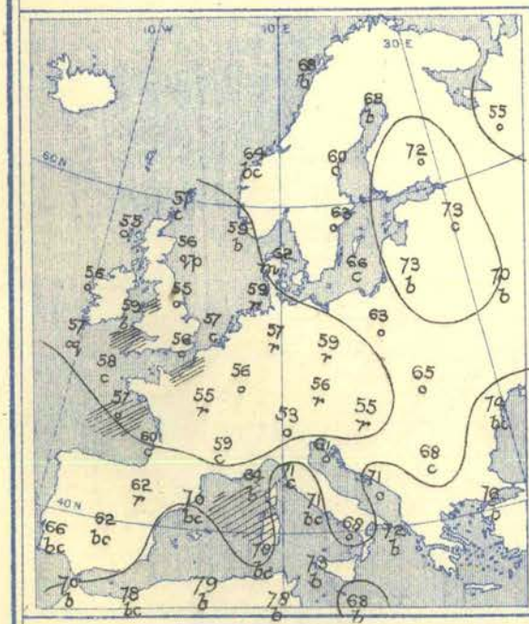
*Temperature* changing fitfully—fallen over France. Morning readings highest, (1) 79° at Algiers, 78° at Athens, and above 70° over many of the south-eastern, southern and western shores of the Mediterranean; (2) 70° at Odessa, above 60° over Russia generally, 72° at St. Petersburg, 71° at Riga. Lowest, (1) 53° at Sumburgh Head, 54° at Malin Head and Shields; (2) 51° at Belfort, 54° at Paris, 55° at Limoges. Rising later to between 60° and 65° over England, 66° at Paris, 73° at Berlin, to 81° at Perpignan and Sanguinaires, 84° at Cagliari, and to 100° at Algiers.

*Wind* fresh to strong (a moderate gale on parts of our north-west coasts); Southerly to Easterly over Scandinavia; North-Easterly in the north of Scotland; North-Westerly in Ireland, Westerly over England; South-Westerly to Southerly over the Netherlands and north Germany. Very variable over south-eastern and southern Europe.

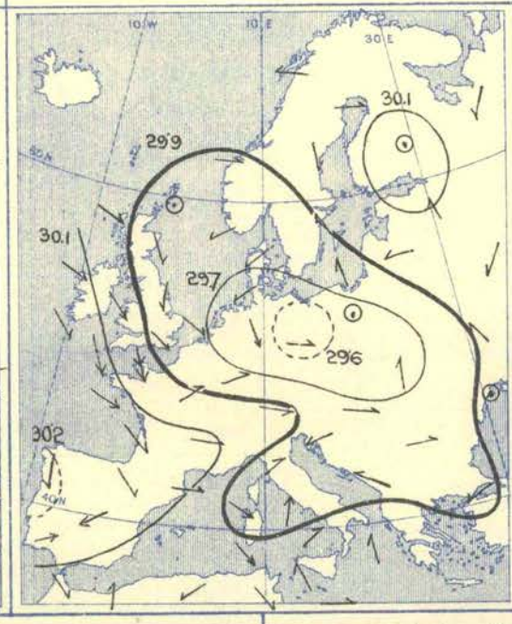
*Barometer* highest, (1) 30·0 ins. and more over northern Europe, and exceeding 29·9 ins. all over Russia; (2) 30·26 ins. at Lisbon, and exceeding 29·9 ins. all over the Iberian Peninsula, the Bay of Biscay and south-west of France. Lowest, 29·3 ins. to 29·4 ins. in a depression lying off the north-east coasts of England, and below 29·8 ins. in a secondary over France. Rising in our Islands all day (especially in the west), falling over Germany.

## Monday, 3rd July.

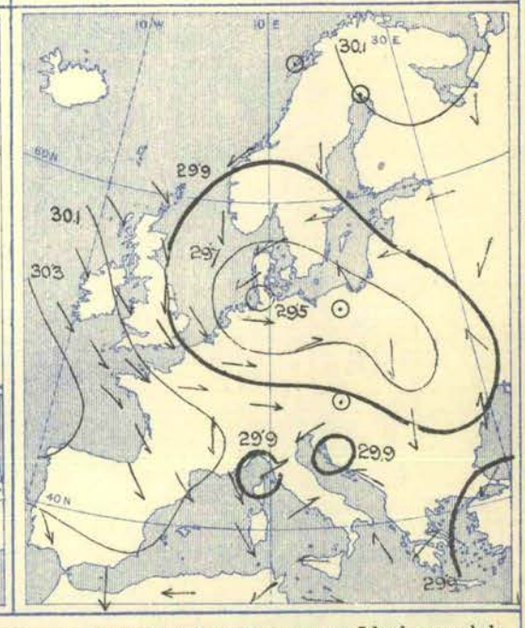
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning dull and cold over our Islands and the north of France, squally over the North Sea, with rain showers there, over the north-west of Germany, Denmark and the south of Norway. Considerable rain later in all the latter regions, thunder locally; showers in a few parts of our Islands, thunder showers and local rains at Loughborough (Leicestershire). Considerable rain over the Netherlands, the Baltic and central Europe.

*Temperature* risen over northern, fallen over central Europe. Morning readings highest, (1) 72° at Kuopio, 73° at St. Petersburg, 70° at Moscow, and 70° to 60° over the greater part of Scandinavia; (2) 79° at Algiers, 79° at Brindisi, 70° at Barcelona. Lowest, 55° to 60° over the greater part of our Islands (65° at Leith). Continuing below 65° at most of our stations later, but touching 79° at Stockholm, 77° at Nice, and 75° at Perpignan, to 91° at Brindisi and Tunis.

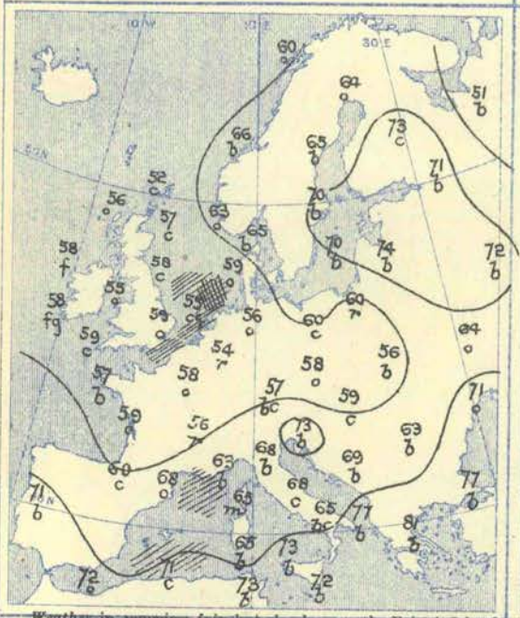
*Wind* Easterly in the west of Norway, North-Westerly (strong) over our Islands as a whole Westerly over France and Germany, South-Easterly (light) over Russia. Very variable (but cyclonic and rather strong) over the Mediterranean. No decided change later.

*Barometer* highest, (1) 30·4 ins. at P. Delgada, 30·2 ins. at Oporto, 30·2 ins. to 30·1 ins. over the Bay of Biscay, the northern parts of Spain, the south-west of France and the south-west of Ireland; (2) 30·1 ins. and more over Finland, and above 30·0 ins. almost all over Russia and the northern parts of Scandinavia. Lowest, 29·6 ins. and less in a depression over north Germany, and below 29·9 ins. over the north-eastern parts of the Mediterranean and the north of Italy. Rising later all over north-western Europe, falling over the Azores and Spanish Peninsula.

## Tuesday, 4th July.

### Temperature and Weather.

8 a.m.

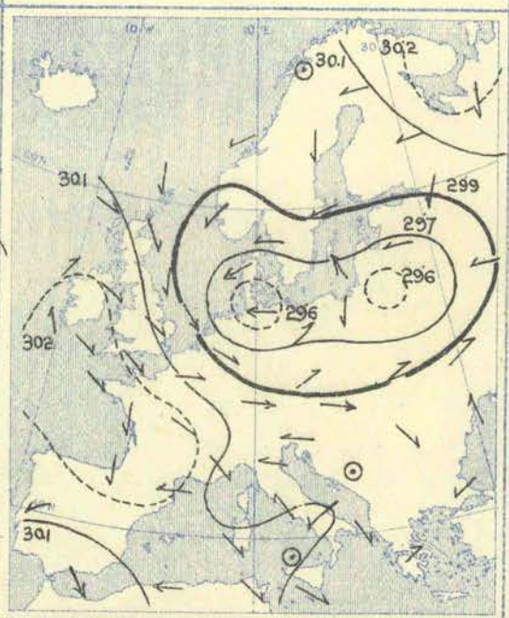


*Weather* in morning fair but cloudy over the British Islands generally and France; very unsettled over the North Sea, Germany and the Baltic, with rain in many places, but very fine over Scandinavia and Russia. Rain in considerable quantity later over Germany and the east and south-east of France, and slight showers over some of the western parts of our Islands, dull in many parts of Great Britain till the evening. Considerable rain again in the east of France and at Warsaw.

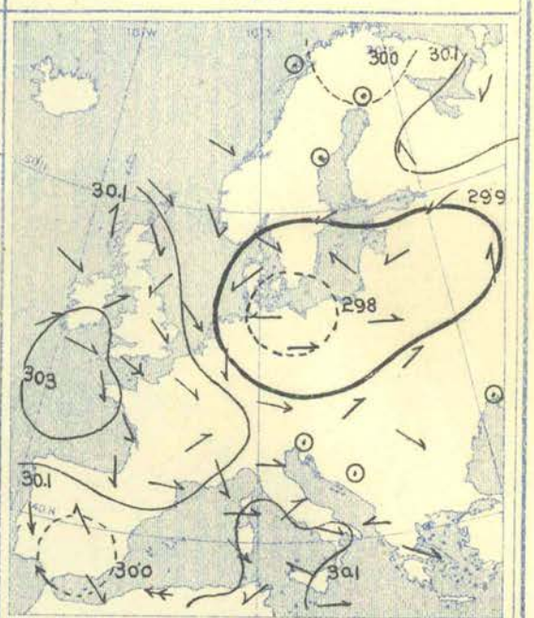
*Temperature* fallen fast over parts of north Germany, not much changed elsewhere. Morning readings highest, (1) 81° at Athens, above 70° in several parts of Algeria, and above 60° over the Mediterranean generally; (2) 73° at Kuopio, 72° at Moscow, 70° in the south-east of Sweden, and above 60° at the Scandinavian stations generally. Lowest, 52° at Sumburgh Head, 56° at Stornoway and Malin Head, 54° to 56° over the Netherlands, 53° to 58° over Austria. Not touching 70° in our Islands during day, but reaching 73° at Nice, 74° at Perpignan, to 80° or more at Brindisi, Cagliari and La Calle.

### Barometer and Wind.

8 a.m.



6 p.m.



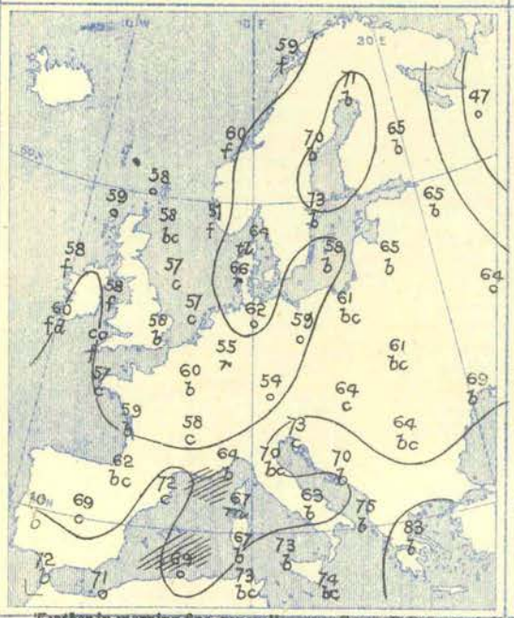
*Wind* North-Easterly over Scandinavia, North-Westerly and moderate over Great Britain, North-Westerly to Westerly and Southerly over the North Sea, Germany, and strong in force. Easterly at the mouth of the Elbe. Some tendency to become Southerly (light) over Ireland. Falling still lighter in Great Britain later, but the Southerly wind in Ireland making little advance.

*Barometer* highest, (1) 30·3 ins. and more over the Bay of Biscay, Ireland, the south-west of England and west of France; (2) 30·2 ins. at Archangel, and exceeding 30·0 ins. all over northern Russia, Finland and the north of Scandinavia. Lowest, 29·5 ins. to 29·7 ins. in a complex depression over north Germany; (2) below 30·2 ins. off our extreme north-west coasts. The high pressure area in the south-west spreading later more over England. The depression over Germany breaking up.

## Wednesday, 5th July.

### Temperature and Weather.

8 a.m.

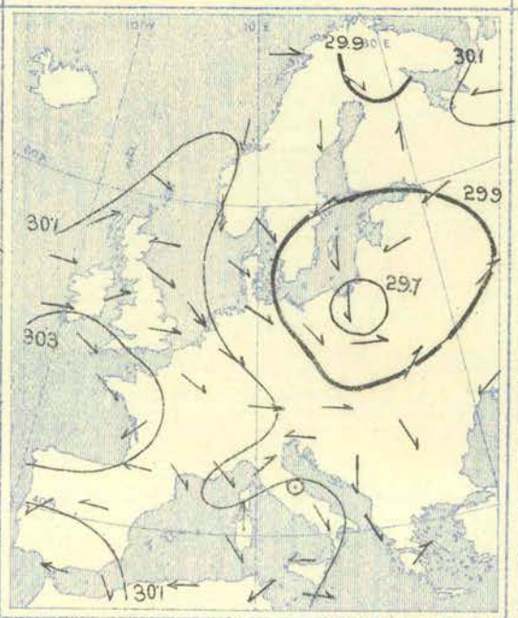


*Weather* in morning fine generally over Great Britain and France, also over the Baltic and northern Europe, dull and foggy at several of our western stations, dull and unsettled over Germany, with rain in places. Rain later over Germany and the Netherlands, as well as in some parts of Norway and Ireland, but less general and heavy than of late.

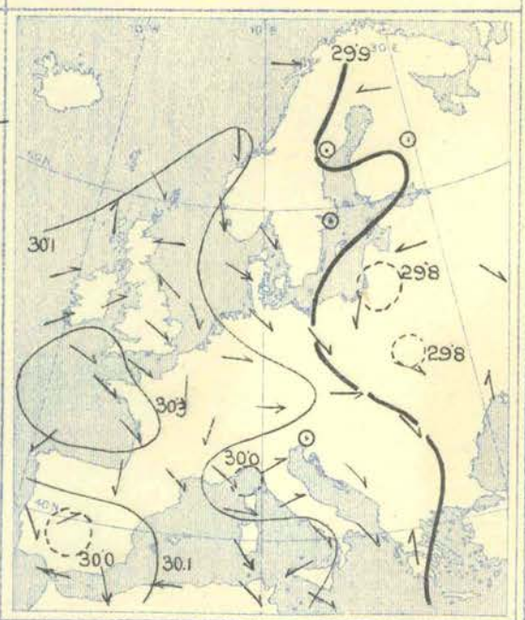
*Temperature* beginning to rise generally over our Islands, falling over Russia. Morning readings highest, (1) 80° and more over Greece, 70° and more to 60° over the Mediterranean, 60° and more over the southern half of our Islands and in the Netherlands; (2) 78° at Stockholm, and above 70° at Hangö, Karlstad, Hernösand, and Haparanda. Lowest, (1) 53° at Sumburgh Head, 57° at Wick and Malin Head, 58° in London and at the Helder; (2) 53° at Belfort and Breslau, 54° at Munich, and below 60° in many parts of western and central Europe. Rising later to 70° or more over the inland parts of Ireland and England, to 72° at Paris, 75° at Nice, and 78° at Perpignan, to 80° and more at Cagliari, and to 85° or 89° over Spain.

### Barometer and Wind.

8 a.m.



6 p.m.



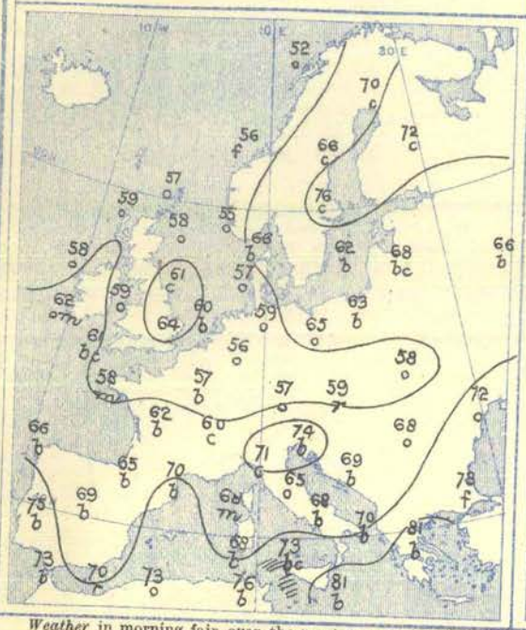
*Wind* (1) light to moderate and anticyclonic over our Islands and France; (2) moderate, but cyclonic, over northern, central and eastern Europe, viz., Northerly over Scandinavia, North-Westerly over the North Sea and western Germany, Westerly over Austria-Hungary, Easterly at Memel.

*Barometer* highest, 30·3 ins. and more to 30·2 ins. over the Bay of Biscay, France, England and Ireland, and above 30·1 ins. in Scotland. Lowest, below 29·7 ins. over the north-east of Germany; below 30·0 ins. in a secondary over the northern parts of the Adriatic, and below 30·1 ins. over the Riviera. Rising a little in our Islands later, and over the Bay of Biscay.

## Thursday, 6th July.

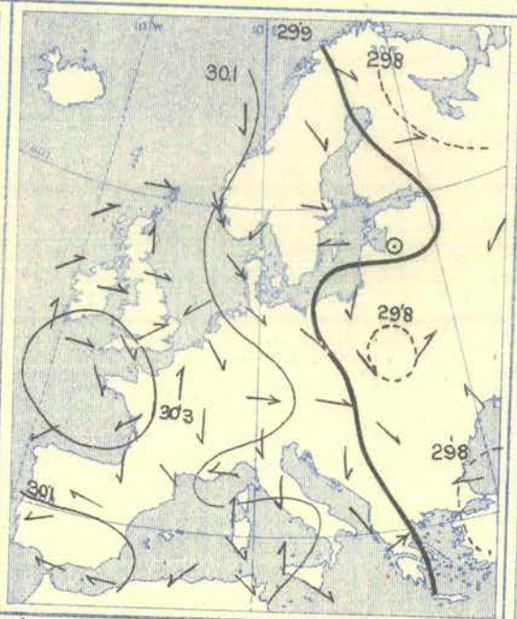
### Temperature and Weather.

8 a.m.

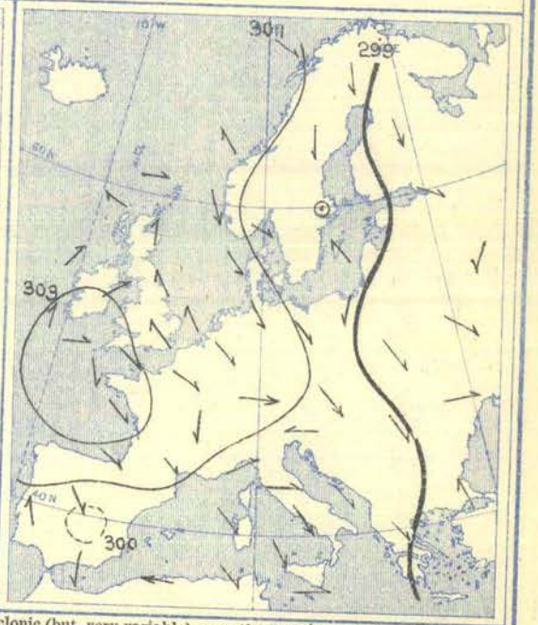


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair over the greater part of our Islands and north-western Europe, but foggy or dull in many places, improving generally over the Baltic and Germany. Showers locally in some parts of our Islands, thunderstorms in Kent, Sussex and Surrey, and a little rain at Munich. Clouds very heavy in London, but clearing at night; some heavy local falls over the southern parts of central Europe.

*Temperature* inclined to rise generally. Morning readings highest, (1) 81° at Malta, 80° at Athens, 76° at Brindisi and Sfax, 72° at Barcelona, above 60° in many parts of our Islands; (2) 76° at Moscow, and above 70° at several stations in northern Europe. Lowest, 52° at Bodö, 55° at Donaghadee, 56° at Breslau, the Helder and Brussels, 54° at Belfort, 57° at Munich. Rising later to between 74° and 79° over the inland parts of Ireland and England, to 72° at Berlin, 75° at Paris, 81° at Perpignan and 82° at Lisbon; 68° to 79° over Italy, but 85° at Madrid.

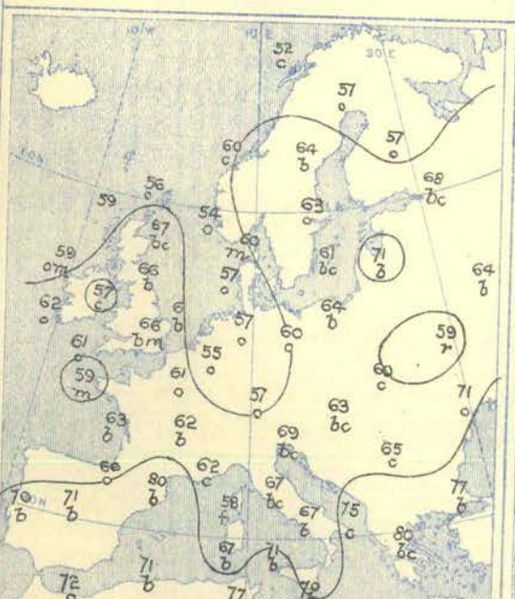
*Wind* light and mainly anticyclonic (but very variable) over the British Islands and France, light to strong, but mainly cyclonic from between North-East and North-West over the countries lying to the Eastward of the North Sea, variable over the Mediterranean. Inclined to become Southerly in Ireland later, but not strong.

*Barometer* highest, 30·3 ins. and more to 30·2 ins. over the Bay of Biscay, France and the British Islands. Lowest, below 29·9 ins. over Hungary, Russia and Finland. Gradients rather irregular, but decreasing. Rising over Great Britain and France all day, inclined to fall in Ireland.

## Friday, 7th July.

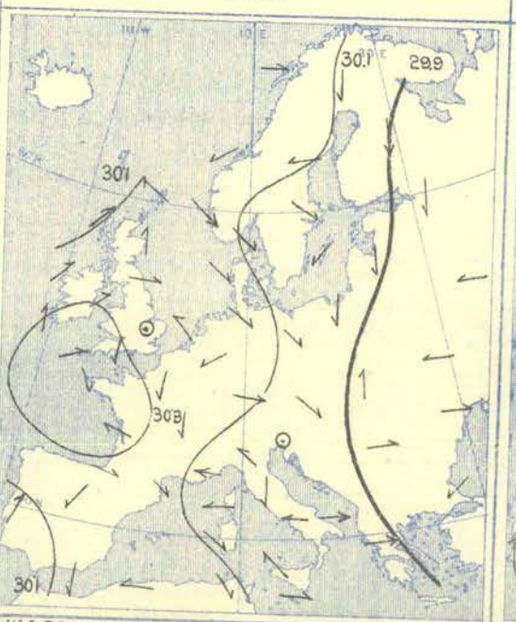
### Temperature and Weather.

8 a.m.

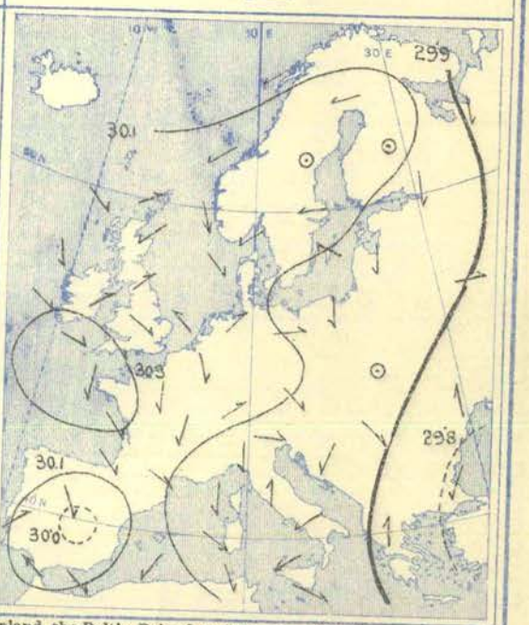


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over France and the greater part of the British Islands; foggy or hazy in many places, with slight rain at our extreme north-western stations; fair over Scandinavia and Russia; dull and unsettled over northern Europe, with rain in several places. Rain falling later in the north and north-west of our Islands, in south Germany, and at Nice; thunder and lightning in many parts of our Islands, and a solar halo at Oxford. Thunderstorms in the Riviera; rain in Austria.

*Temperature* still rising over our Islands; fallen over northern Europe. Morning readings highest, 80° at Athens and Barcelona, and above 70° over the western and southern shores of the Mediterranean generally; 70° at Lisbon and Leith; more than 60° over many parts of our Islands, central Europe, and Sweden. Lowest, (1) 54° at Skudesnaes, 59° at Stornoway and Belmullet; (2) 55° at Brussels, 56° at Münster, 57° at Prague and Cracow. Rising later to 70° and more over the inland parts of England, to 84° at Perpignan, 90° at Madrid, and 86° at Sfax and Tunis.

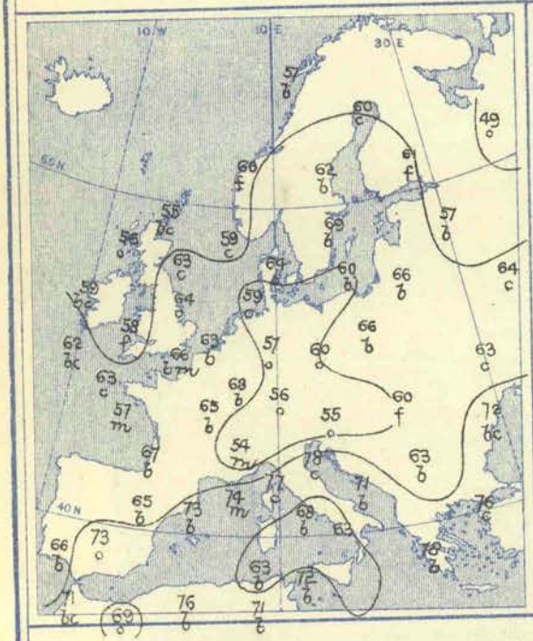
*Wind* (1) light, Northerly over Finland, the Baltic, Poland, and Hungary; (2) light, anticyclonic and variable over our Islands and France; (3) light and very variable over the Mediterranean generally. Little change later.

*Barometer* highest, (1) 30·3 ins. and more to 30·2 ins. in an anticyclone of somewhat irregular form, covering the Bay of Biscay, France, the Netherlands, England, and Ireland, and extending far to the northward and north-eastward in a "ridge-like" form; (2) 30·2 ins. at Bodö. Lowest, below 30·0 ins. over Russia and Turkey in Europe. Giving way a little in our Islands later—most in London.

## Saturday, 8th July.

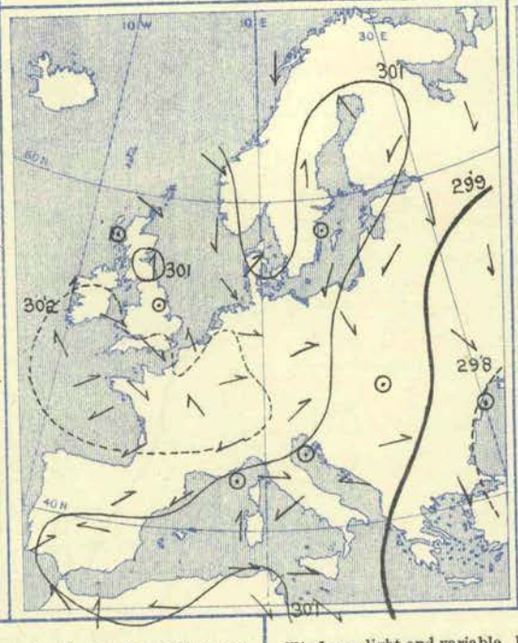
### Temperature and Weather.

#### 8 a.m.

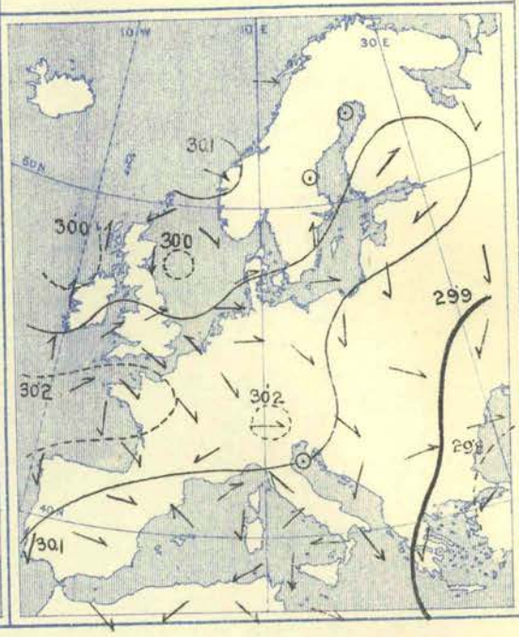


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fine over France, western Germany, the Netherlands, the North Sea, and England; rainy in some parts of central Europe and in Scotland; dull and rather unsettled in Ireland. A little rain later in some portions of our western and northern districts; considerable thunderstorms in the south-east and east of England; rain at Paris and in various parts of Scandinavia.

*Temperature* in morning fallen considerably in Scotland (as much as 13° at Wick and 10° at Nairn), risen over several parts of central Europe. Morning readings highest, (1) 78° to 70° in many parts of the Mediterranean, 68° to 60° over north Germany, above 60° over England; (2) 69° at Riga and Stockholm, 68° at Karlstad, 63° at Uleaborg. Lowest, (1) 52° at Wick, 55° at Sumburgh Head and Malin Head, 58° at Holyhead; (2) 54° at Belfort, 55° at Munich, 56° at Wiesbaden, 58° at Cracow. Rising later to 71° at Parsonstown, to between 74° and 80° over England, to 78° at Paris, 84° at Rochefort, and 88° at Perpignan.

*Wind* very light and variable, but mainly Northerly to North-Westerly over the Baltic and Poland, and from the Southward in Ireland, and from the East in the west of France. The Southerly current freshening a little in the west and north-west of our Islands later.

*Barometer* was highest, (1) 30·2 ins. and more in an anticyclone covering France, western Germany, and the greater part of Ireland and England—its northern margin being rather badly defined; (2) above 30·1 ins. over the north-east of Africa. Lowest, below 30·1 ins. over the northern and central parts of Scandinavia, and also in a small depression over Scotland; below 29·8 ins. over the Black Sea. Falling slowly over our Islands during the day, rising slightly at the Scaw.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟶⟶ = a heavy gale ⟶⟶ = a gale; ⟶⟶ = a fresh to strong breeze; ⟶⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the commencement of this week barometric pressure was highest both over the Atlantic and south-western Europe on the one hand, over Finland and north-eastern Europe on the other. In the meantime a depression and some secondaries lay over north Germany, the Baltic, and the North Sea. Rather strong North-Westerly breezes were prevailing over the British Isles, Westerly over the southern parts of France and Germany, South-Easterly to Easterly over Russia and the Baltic. Over the British Islands the weather was beginning to improve, but rain in considerable quantity fell over France and Germany, and as the depression became more complex the fall spread to almost the whole of central Europe and the Baltic. In the meantime the high pressure area over the Atlantic spread more completely over France and the British Isles, and in those regions, except where local thunderstorms intervened, the weather became fine and warm.

By the morning of Thursday the depression noticed over Germany had reached Russia and was breaking up, so that the weather in these regions began to improve as well as over the northern part of the Mediterranean, which had previously been affected by local disturbances of no great depth.

At the close of the week the weather was fair and quiet very generally, but there were some indications of a new disturbance approaching our western coasts from the Atlantic.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 158.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 29·8 | ? | 24 | ? |
| STRATHPEFFER SPA | 10·6 | -24·7 | 9 | -20 |
| EDINBURGH | 24·8 | - 8·0 | 21 | - 6 |
| MORPETH | 55·1 | ? | 46 | ? |
| NEWCASTLE-ON-TYNE | 48·0 | ? | 40 | ? |
| OSWALDKIRK (Yorkshire) | | | | |
| LOWESTOFT | 45·7 | ? | 40 | ? |
| HOLLESLEY BAY | 43·3 | ? | 38 | ? |
| SHEFFIELD | 41·3 | ? | 36 | ? |
| WORKSOP | 33·9 | - 0·9 | 29 | - 2 |
| THURCASTON (Leicestershire) | 42·4 | + 5·4 | 37 | + 5 |
| MARGATE | 26·8 | -14·0 | 24 | -13 |
| WESTBOURNE (Emsworth) | 67·5* | +20·7 | 60* | +18 |

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|
| WATERGATE (Emsworth) | 62·6 | ? | 55 | ? |
| BRIGHTON | 59·8 | + 8·8 | 53 | + 7 |
| WORTHING | 65·2 | ? | 58 | ? |
| BOGNOR | 63·1* | ? | 56* | ? |
| EASTBOURNE | 45·5 | - 4·1 | 40 | - 5 |
| VENTNOR HOSPITAL | 63·3 | ? | 56 | ? |
| SOUTHPORT | 35·6 | ? | 30 | ? |
| COLWYN BAY | 40·6 | ? | 35 | ? |
| ABERDOVEY | 27·0* | ? | 23* | ? |
| TENBY | 52·5 | + 0·5 | 46 | + 1 |
| NEWQUAY | 43·1 | - 8·7 | 38 | - 7 |
| TORQUAY | 68·6 | +18·7 | 61 | +15 |
| GUERNSEY | 80·6* | +26·5 | 73* | +25 |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 28.] *Third Series.* WEEK ENDING SATURDAY, JULY 15TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 164.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 70 | 44 | 62·7 | 50·8 | 56·3 | 2 above | 100 | +19 | 0 | 0 | 961* | +141 | 617 | - 6 |
| | 1. SCOTLAND, EAST | 72 | 40 | 64·6 | 51·9 | 57·8 | 1 above | 111 | +13 | 0 | 0 | 1099 | + 74 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 77 | 46 | 71·1 | 54·7 | 62·4 | 4 above | 143 | +35 | 0 | 0 | 1256 | +207 | 456 | - 93 |
| | 3. ENGLAND, EAST | 87 | 47 | 74·0 | 57·1 | 65·0 | 5 above | 161 | +41 | 0 | 0 | 1470 | +198 | 421 | -196 |
| | 4. MIDLAND COUNTIES | 84 | 46 | 73·7 | 54·8 | 63·6 | 4 above | 151 | +35 | 0 | 0 | 1493 | +186 | 478 | -141 |
| | 5. ENGLAND SOUTH | 85 | 47 | 71·3 | 56·5 | 63·3 | 3 above | 149 | +23 | 0 | 0 | 1650 | +260 | 294 | -183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 68 | 42 | 63·8 | 52·7 | 57·9 | 1 above | 111 | +11 | 0 | 0 | 1194 | +102 | 413 | - 49 |
| | 7. ENGLAND, N.W. | 73 | 47 | 67·1 | 54·6 | 60·4 | 1 above | 129 | +19 | 0 | 0 | 1376 | +214 | 313 | -146 |
| | 8. ENGLAND, S.W. | 77 | 47 | 68·2 | 56·3 | 61·8 | 2 above | 139 | +24 | 0 | 0 | 1595 | +259 | 240 | -121 |
| | 9. IRELAND, NORTH | 73 | 40 | 62·5 | 51·8 | 56·8 | 0 (average) | 104 | + 2 | 0 | 0 | 1304 | +116 | 323 | - 72 |
| | 10. IRELAND, SOUTH | 70 | 44 | 64·2 | 53·5 | 58·5 | 0 (average) | 116 | + 5 | 0 | 0 | 1597 | +223 | 245 | - 54 |
| | —CHANNEL ISLANDS | 80 | 53 | 69·2 | 57·3 | 62·8 | 2 above | 146 | +21 | 0 | 0 | 1925 | +422 | 81 | - 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 164.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 5 | 9 | 1 more | 119* | - 6 | 24·0 | + 0·5 | 24 | - 8 | 20 | - 7 | 734* | + 17 | 28 | + 1 |
| | 1. SCOTLAND, EAST | 4 | 11 | 5 more | 112 | +11 | 18·4 | + 3·5 | 28 | - 8 | 23 | - 8 | 802 | + 30 | 32 | + 1 |
| | 2. ENGLAND, N.E. | 3 | 3 | 2 less | 100 | + 5 | 12·8 | + 0·7 | 29 | - 2 | 25 | - 1 | 786* | + 43 | 32 | + 2 |
| | 3. ENGLAND, EAST | 1 | 1 | 5 less | 90 | - 2 | 11·1 | - 1·0 | 52 | + 7 | 46 | + 7 | 1037 | +120 | 40 | + 5 |
| | 4. MIDLAND COUNTIES | 2 | 2 | 4 less | 90 | - 1 | 14·0 | + 0·5 | 46 | + 6 | 41 | + 5 | 925 | +154 | 38 | + 6 |
| | 5. ENGLAND, SOUTH | 1 | 1 | 5 less | 78 | - 9 | 11·4 | - 2·0 | 54 | + 7 | 48 | + 7 | 1087 | +159 | 43 | + 6 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 6 | 18 | 10 more | 117 | +10 | 27·5 | + 3·9 | 27 | -14 | 23 | -12 | 814 | + 1 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 4 | 9 | 3 more | 105 | + 8 | 18·5 | + 3·2 | 34 | - 6 | 30 | - 5 | 927 | +121 | 37 | + 5 |
| | 8. ENGLAND, S.W. | 4 | 9 | 2 more | 99 | + 1 | 21·4 | + 3·4 | 38 | - 9 | 34 | - 8 | 1054 | + 81 | 42 | + 3 |
| | 9. IRELAND, NORTH | 5 | 9 | 2 more | 123 | + 9 | 20·1 | + 2·7 | 22 | -13 | 19 | -11 | 827 | + 56 | 33 | + 2 |
| | 10. IRELAND, SOUTH | 5 | 14 | 7 more | 106 | + 1 | 22·9 | + 3·8 | 26 | -10 | 23 | - 9 | 923 | + 56 | 37 | + 2 |
| | — CHANNEL ISLANDS | 4 | 10 | 5 more | 95 | -10 | 15·1 | 0·0 | 46 | - 1 | 42 | - 1 | 1174 | +135 | 50 | + 6 |

*Bright Sunshine*.—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during the earlier half of the week was generally unsettled, the rainfall being slight and partial in the east and south of England, but heavy in the western and northern parts of the Kingdom. Thunderstorms were experienced on the 11th at several of the English stations, and on the following day over all the northern parts of Great Britain. Later on a general improvement occurred, but in Ireland and the west and north of Scotland the conditions still remained somewhat showery.

*Temperature* was just equal to the normal in Ireland, but was above it over Great Britain, the excess being slight in the western districts, but amounting to as much as 4° in England N.E. and the Midland counties, and to 5° in England E. The highest readings were recorded over England on the 11th or 12th when the thermometer rose to 84° in the Midland counties to 85° in England S., and to 87° in England E. In Ireland and Scotland the highest readings occurred, as a rule, during the latter part of the week, and were much lower than those over England ; in Scotland N. and Ireland S., the thermometer did not exceed 70°, while in Scotland W. it only rose to 68°. The lowest readings occurred at various times in different districts, and ranged from 40° in Scotland E. and Ireland N., to 46° or 47° in most of the English districts, and to 53° in the Channel Islands.

*Rainfall* was in excess of the mean in all the more western and northern districts ; in Ireland S. the total fall was twice as much as the normal, and in Scotland E. and Scotland W. more than twice. Over the eastern, central and southern parts of England there was a considerable deficiency, and at some stations in these districts no measurable amount was reported.

*Bright Sunshine* exceeded the mean in England E., the Midland Counties and England S., as well as in the Channel Islands. Elsewhere it amounted to less than the average, and in Ireland and the west of Scotland the deficiency was large. The percentage of the possible duration ranged from 49 in England S., and 46 in England E., to 23 in Scotland E. and W. and Ireland S., and to 19 in Scotland N.

*Barometer and Wind.*—Shortly after the commencement of the week the anticyclone which had previously existed over our Islands moved away to the eastward, while a depression skirted our western and northern coasts, the prevailing winds being southerly or South-Westerly. On the 10th a shallow cyclonic system was gradually formed over our western districts, the disturbance afterwards spreading eastwards over the whole of England, but finally moving away to the north-eastward and northward. During its progress the wind was Southerly or South-Easterly in the more eastern parts of the Kingdom, but Northerly or North-Westerly in the west. As the disturbance passed away an anticyclone spread gradually over the southern parts of our Islands, while shallow depressions moved north-eastwards along our extreme north-western and northern coasts, the wind again shifting to the South-Westward in all districts.

207 | 90 Wy. & S., Ltd.
913 | 70 7 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 163 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 63 | 47 | 60·7 | 50·7 | 55·4 | + 2·9 | 94 | 0 | 4 | 0·32 | - 0·20 | * | * | * | * |
| | Stornoway | 63 | 48 | 61·0 | 51·1 | 55·7 | + 1·7 | 96 | 0 | 5 | 1·55 | + 0·86 | 23·0 | -14·0 | 19 | -11 |
| | Wick | 70 | 46 | 64·6 | 50·0 | 56·8 | + 1·9 | 104 | 0 | 4 | 0·81 | + 0·26 | * | * | * | * |
| | Lairg Ⓢ | 69 | 47 | 63·2 | 50·7 | 56·5 | + 2·2 | 102 | 0 | 5 | 1·03 | + 0·37 | * | * | * | * |
| | Glencarron Ⓢ | 64 | 45 | 61·6 | 49·7 | 55·2 | + 0·3 | 92 | 0 | 6 | 0·95 | - 0·32 | * | * | * | * |
| | Fort Augustus Ⓢ | 68 | 44 | 63·9 | 51·5 | 57·2 | + 0·7 | 106 | 0 | 5 | 0·80 | + 0·10 | 20·0 | - 4·4 | 17 | - 3 |
| | Fort William Ⓢ | 66 | 48 | 63·6 | 52·1 | 57·5 | + 1·0 | 109 | 0 | 6 | 0·92 | - 0·23 | 24·3 | - 8·3 | 20 | - 8 |
| 1. SCOTLAND E. | Nairn | 69 | 42 | 65·7 | 51·0 | 57·8 | + 0·8 | 111 | 0 | 4 | 0·87 | + 0·31 | * | * | * | * |
| | Aberdeen | 70 | 51 | 64·1 | 52·9 | 58·1 | + 1·4 | 113 | 0 | 4 | 0·85 | + 0·27 | 30·0 | - 9·3 | 25 | - 8 |
| | Braemar Ⓢ | 62 | 40 | 59·4 | 49·6 | 54·2 | - 0·3 | 85 | 0 | 4 | 0·77 | + 0·09 | 27·5† | - 7·7† | 23† | - 7† |
| | Ochtertyre Ⓢ | 71 | 49 | 66·7 | 52·9 | 59·3 | + 1·3 | 121 | 0 | 4 | 2·09 | + 1·39 | * | * | * | * |
| | Leith | 72 | 50 | 66·3 | 53·0 | 59·2 | + 0·8 | 120 | 0 | 3 | 0·98 | + 0·40 | * | * | * | * |
| | Marchmont Ⓢ | 69 | 45 | 65·6 | 52·0 | 58·3 | + 1·8 | 114 | 0 | 4 | 1·00 | + 0·28 | 28·8 | - 9·9 | 24 | - 9 |
| 2. ENGLAND, N.E. | Alnwick Castle | 74 | 49 | 71·3 | 52·7 | 61·4 | + 4·4 | 136 | 0 | 4 | 0·42 | - 0·14 | * | * | * | * |
| | Durham | 74 | 46 | 72·7 | 52·6 | 62·0 | + 3·4 | 140 | 0 | 4 | 0·39 | - 0·23 | 34·7 | - 1·7 | 30 | - 1 |
| | Shields | 73 | 48 | 68·7 | 53·1 | 60·4 | + 2·9 | 129 | 0 | 5 | 0·34 | - 0·22 | * | * | * | * |
| | Scarborough Ⓜ | 77 | 51 | 72·6 | 56·2 | 63·6 | + 4·9 | 151 | 0 | 2 | 0·51 | - 0·09 | | | | |
| | Spurn Head | 75 | 56 | 70·4 | 59·1 | 64·4 | + 4·9 | 157 | 0 | 2 | 0·05 | - 0·34 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 87 | 47 | 77·8 | 56·8 | 66·6 | + 6·4 | 172 | 0 | 1 | 0·07 | - 0·58 | 55·1 | +12·9 | 48 | +11 |
| | Yarmouth | 73 | 53 | 69·6 | 57·9 | 63·3 | + 3·4 | 149 | 0 | 1 | 0·01 | - 0·59 | * | * | * | * |
| | Geldeston | 79 | 50 | 74·3 | 56·2 | 64·6 | + 4·7 | 158 | 0 | 0 | — | - 0·56 | 44·7 | - 1·1 | 40 | - 1 |
| | Cambridge | 85 | 49 | 77·5 | 56·7 | 66·4 | + 5·2 | 171 | 0 | 2 | 0·16 | - 0·42 | 53·1 | +10·1 | 47 | + 9 |
| | Felixstowe | 73 | 52 | 70·9 | 58·7 | 64·1 | + 4·4 | 155 | 0 | 0 | — | ? | 54·4 | ? | 48 | ? |
| | Rothamsted | 80 | 50 | 73·7 | 56·4 | 64·5 | + 4·3 | 158 | 0 | 1 | 0·11 | - 0·49 | 52·6 | + 7·3 | 47 | + 8 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 84 | 48 | 76·0 | 53·4 | 63·9 | + 4·0 | 153 | 0 | 1 | 0·27 | - 0·33 | * | * | * | * |
| | Loughborough | 84 | 51 | 76·6 | 56·3 | 65·7 | + 4·6 | 166 | 0 | 0 | — | - 0·52 | * | * | * | * |
| | Stamford (Duddington) | 83 | 48 | 77·0 | 56·0 | 65·8 | + 4·9 | 167 | 0 | 1 | 0·05 | - 0·53 | * | * | * | * |
| | Cheadle Ⓜ | 76 | 51 | 70·3 | 54·7 | 62·0 | + 4·6 | 140 | 0 | 4 | 0·23 | - 0·49 | * | * | * | * |
| | Shirley (near Solihull) | 80 | 49 | 72·7 | 53·6 | 62·5 | + 2·9 | 144 | 0 | 3 | 0·23 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 73 | 46 | 70·8 | 53·6 | 61·8 | + 4·0 | 139 | 0 | 3 | 0·41 | - 0·14 | ?40·0 | ?+ 0·5 | ?35 | ? 0 |
| | Hereford (Belmont) Ⓜ | 76 | 46 | 72·5 | 53·7 | 62·5 | + 2·3 | 144 | 0 | 3 | 0·41 | - 0·09 | * | * | * | * |
| | Cirencester | 79 | 50 | 73·0 | 54·9 | 63·3 | + 4·4 | 149 | 0 | 2 | 0·25 | - 0·42 | 53·0 | +11·3 | 47 | +10 |
| | Oxford | 83 | 53 | 74·4 | 57·0 | 65·1 | + 4·4 | 162 | 0 | 1 | 0·01 | - 0·53 | 46·6 | + 4·6 | 41 | + 4 |
| 5. ENGLAND, S. | London | 85 | 52 | 77·6 | 58·3 | 67·3 | + 5·1 | 177 | 0 | 1 | 0·10 | - 0·44 | 41·2† | + 2·4† | 36† | + 2† |
| | Cranley Ⓜ | 73 | 47 | 74·3 | 55·6 | 64·3 | + 2·9 | 156 | 0 | 1 | 0·12 | ? | * | * | * | * |
| | Dungeness | 74 | 55 | 68·4 | 58·6 | 63·2 | + 2·3 | 148 | 0 | 0 | — | - 0·44 | * | * | * | * |
| | Hastings (St. Leonards) | 76 | 52 | 70·3 | 56·5 | 62·9 | + 2·4 | 146 | 0 | 1 | 0·01 | - 0·49 | 63·5 | +13·5 | 57 | +13 |
| | Southampton | 80 | 55 | 73·4 | 57·5 | 64·9 | + 3·2 | 160 | 0 | 3 | 0·25 | - 0·33 | 47·1 | + 0·6 | 42 | + 1 |
| | Portland Bill | 66 | 53 | 65·4 | 54·1 | 59·3 | + 0·9 | 121 | 0 | 0 | — | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 74 | 51 | 69·6 | 54·6 | 61·5 | + 2·1 | 137 | 0 | 2 | 0·12 | - 0·56 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 67 | 47 | 63·5 | 52·4 | 57·6 | + 0·4 | 109 | 0 | 7 | 1·66 | + 0·46 | * | * | * | * |
| | Glasgow | 68 | 52 | 64·1 | 54·0 | 58·7 | + 1·5 | 117 | 0 | 6 | 1·53 | + 0·83 | 24·9 | -10·1 | 21 | - 7 |
| | Glenlee Ⓢ | 68 | 42 | 65·0 | 51·1 | 57·6 | + 0·1 | 109 | 0 | 5 | 1·60 | + 0·74 | * | * | * | * |
| | Douglas (Isle of Man) | 66 | 51 | 62·8 | 53·4 | 57·8 | + 0·7 | 111 | 0 | 4 | 2·39 | + 1·79 | 28·7 | -18·3 | 25 | -16 |
| 7. ENGLAND, N.W. | Stonyhurst | 72 | 48 | 67·4 | 53·9 | 60·2 | + 1·8 | 127 | 0 | 4 | 0·54 | - 0·41 | 33·7 | - 6·5 | 29 | - 6 |
| | Blackpool Ⓜ | 71 | 49 | 68·0 | 53·3 | 60·1 | + 0·7 | 127 | 0 | 5 | 1·00 | + 0·40 | 36·6 | - 5·0 | 32 | - 4 |
| | Manchester (Prestwich) | 73 | 47 | 69·9 | 54·6 | 61·7 | + 3·3 | 138 | 0 | 5 | 0·57 | - 0·23 | 32·2 | ? | 28 | ? |
| | Liverpool Obsy. (Bidston) | 71 | 53 | 67·9 | 55·7 | 61·4 | + 1·8 | 136 | 0 | 5 | 0·78 | + 0·18 | 32·9 | ? | 29 | ? |
| | Llandudno Ⓜ | 69 | 53 | 67·1 | 55·4 | 60·8 | + 1·2 | 132 | 0 | 2 | 0·65 | + 0·10 | 35·4 | - 6·1 | 31 | - 5 |
| | Holyhead | 64 | 50 | 62·1 | 54·4 | 58·0 | - 0·7 | 112 | 0 | 5 | 1·98 | + 1·48 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 72 | 47 | 70·1 | 55·0 | 62·1 | + 3·4 | 141 | 0 | 4 | 1·58 | + 0·72 | * | * | * | * |
| | Pembroke | 64 | 55 | 62·4 | 56·3 | 59·1 | + 0·8 | 120 | 0 | 4 | 1·88 | + 1·37 | 34·3 | -15·5 | 30 | -12 |
| | Clifton | 77 | 55 | 73·0 | 58·2 | 65·1 | + 4·8 | 162 | 0 | 3 | 0·43 | - 0·19 | * | * | * | * |
| | Arlington (N. Devon) | 70 | 50 | 67·7 | 55·7 | 61·3 | + 3·0 | 135 | 0 | 5 | 1·01 | + 0·01 | * | * | * | * |
| | Cullompton Ⓜ | 75 | 48 | 72·1 | 55·3 | 63·1 | + 2·5 | 148 | 0 | 2 | 0·16 | - 0·56 | 38·8 | - 3·1 | 35 | - 2 |
| | Falmouth | 70 | 52 | 67·6 | 56·0 | 61·9 | + 2·2 | 139 | 0 | 6 | 0·53 | - 0·17 | 33·7 | -16·4 | 30 | -14 |
| | Plymouth | 67 | 54 | 64·2 | 56·8 | 60·2 | - 0·9 | 127 | 0 | 5 | 0·18 | + 0·18 | 35·8 | - 9·2 | 32 | - 9 |
| 9. IRELAND, N. | Malin Head | 63 | 50 | 60·3 | 52·9 | 56·3 | - 0·4 | 100 | 0 | 3 | 0·23 | ? | * | * | * | * |
| | Londonderry | 73 | 46 | 65·1 | 51·6 | 57·9 | - 0·1 | 111 | 0 | 6 | 0·62 | - 0·08 | * | * | * | * |
| | Edenfel (Omagh) | 65 | 43 | 61·6 | 51·7 | 56·3 | - 0·3 | 100 | 0 | 5 | 1·28 | + 0·58 | * | * | * | * |
| | Belmullet | 64 | 47 | 61·6 | 52·4 | 56·7 | - 1·0 | 103 | 0 | 4 | 0·80 | + 0·05 | * | * | * | * |
| | Markree Castle | 68 | 40 | 63·2 | 50·2 | 56·3 | - 0·1 | 100 | 0 | 6 | 0·57 | - 0·25 | 20·6 | -11·9 | 18 | -10 |
| | Armagh | 69 | 46 | 63·6 | 52·2 | 57·5 | 0·0 | 109 | 0 | 4 | 1·18 | + 0·48 | 23·1 | -12·4 | 20 | -11 |
| | Donaghadee | 66 | 49 | 62·1 | 51·6 | 56·5 | - 0·9 | 102 | 0 | 6 | 1·69 | + 1·12 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 70 | 49 | 66·1 | 55·1 | 60·2 | + 0·4 | 127 | 0 | 3 | 1·68 | + 1·18 | 24·9 | -13·6 | 22 | -11 |
| | Parsonstown | 70 | 46 | 64·6 | 50·9 | 57·3 | - 0·9 | 107 | 0 | 5 | 1·30 | + 0·72 | 19·0 | -13·5 | 17 | -12 |
| | Kilkenny | 68 | 44 | 64·9 | 51·4 | 57·7 | - 0·9 | 110 | 0 | 5 | 1·76 | + 1·18 | * | * | * | * |
| | Roche's Point | 65 | 50 | 63·4 | 54·4 | 58·6 | - 0·9 | 116 | 0 | 6 | 1·66 | + 0·96 | * | * | * | * |
| | Valencia | 65 | 53 | 62·9 | 56·3 | 59·4 | + 0·9 | 122 | 0 | 7 | 1·34 | + 0·37 | 34·7 | - 3·1 | 31 | - 2 |
| | Killarney | 38 | 44 | 64·1 | 53·3 | 58·3 | + 0·4 | 114 | 0 | 3 | 1·00 | ? | * | * | * | * |
| | Foynes | 70 | 48 | 63·7 | 52·9 | 57·9 | + 0·4 | 111 | 0 | 3 | 0·75 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 71 | 55 | 67·3 | 58·6 | 62·7 | + 3·0 | 145 | 0 | 5 | 1·86 | + 1·36 | 34·1 | ? | 31 | ? |
| | Jersey | 80 | 53 | 71·0 | 55·9 | 62·9 | + 1·2 | 146 | 0 | 2 | 0·06 | - 0·44 | 49·0 | - 3·4 | 45 | - 3 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

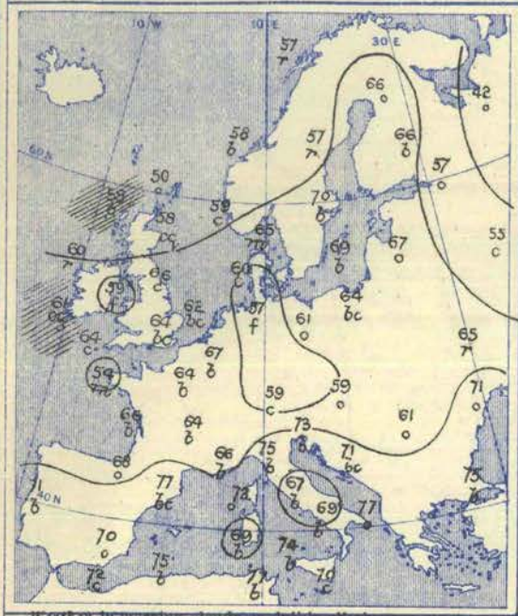
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 9th July.

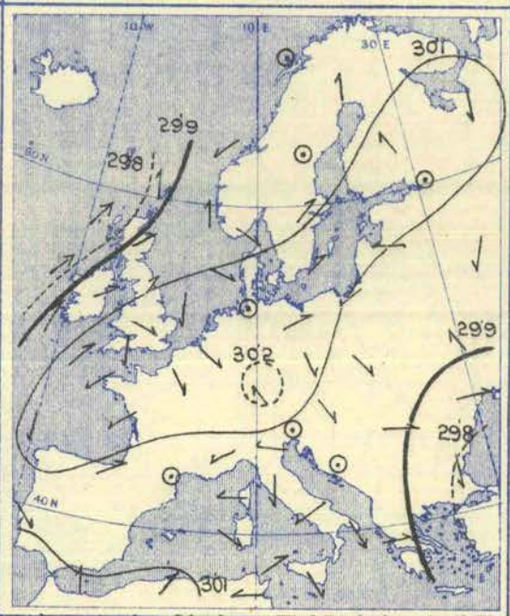
### Temperature and Weather.

8 a.m.

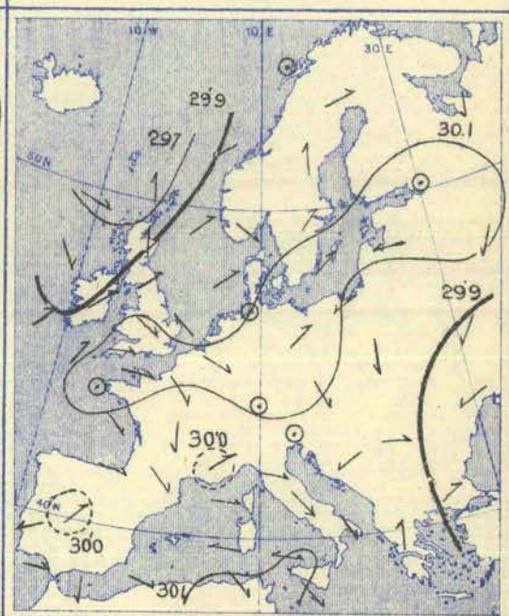


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning cloudy or dull in all the more western and northern parts of our Islands, with rain in the north-west of Ireland. Fine over the south and east of England, and the greater part of the Continent, but dull at many of the Scandinavian stations, with rain at Bodö and Hernösand; dull also in several parts of Germany and Austria. Rain falling later in the west and north of our Islands generally—heavily in places; considerable amounts reported also in Austria. Thunder and lightning occurring at Nice; lightning seen in London and at Lyons.

*Temperature* fallen over England and the neighbouring parts of the Continent, risen elsewhere. Morning readings highest, 77° at Barcelona, Brindisi, Patras and Sfax, and 75° at Leghorn, Constantinople and La Calle; above 70° over southern Europe generally, and just touching that point at Stockholm. Lowest, (1) 42° at Archangel and 55° at Moscow; (2) 50° at Sumburgh Head, and 58° at Wick, Nairn and Aberdeen. Rising during day to 75° and upwards at many of the English stations and to 79° in London; exceeding 80° in most parts of France and southern Europe and reaching 93° at Madrid.

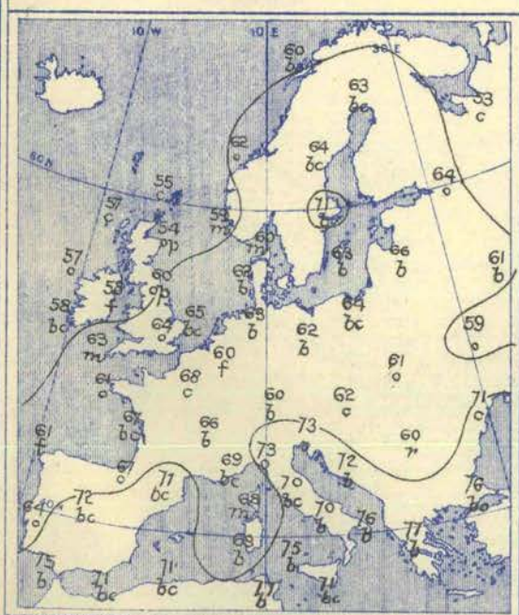
*Wind* Southerly or South-Westerly in all the more western and northern parts of our Islands, and fresh or strong in force on our own extreme north-west coasts. Light from the North-Westward or Northward in the south-eastern parts of England; Easterly or North-Easterly over the greater part of France. Westerly in Denmark; Southerly in Finland and Scandinavia; variable over the central and southern parts of Russia. Rather variable, but chiefly North-Westerly over the Spanish Peninsula, Italy and Austria. Subsequently shifting to the North-Westward on our extreme north-west coasts; no important change occurring elsewhere.

*Barometer* highest, 30·1 ins. to 30·2 ins. or rather more in a broad band stretching from north-east to south-west over nearly the whole of Europe. Lowest, 29·8 ins. and less in a depression lying off our own extreme north-west coasts, and also in another disturbance over the Black Sea. Former depression subsequently moving northwards, but "V"-shaped secondary systems advancing eastwards across Ireland and Scotland.

## Monday, 10th July.

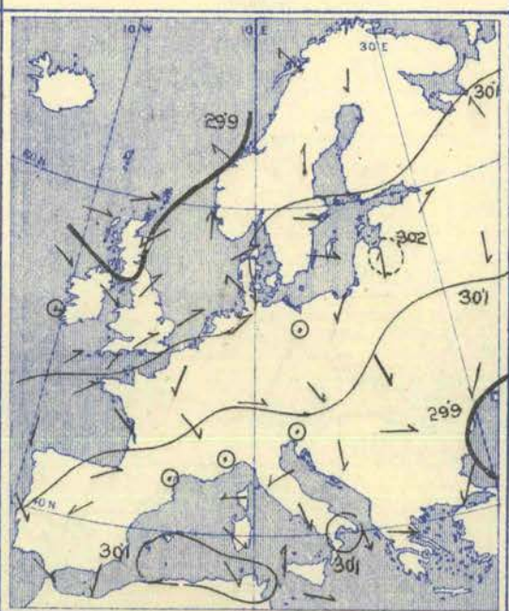
### Temperature and Weather.

8 a.m.

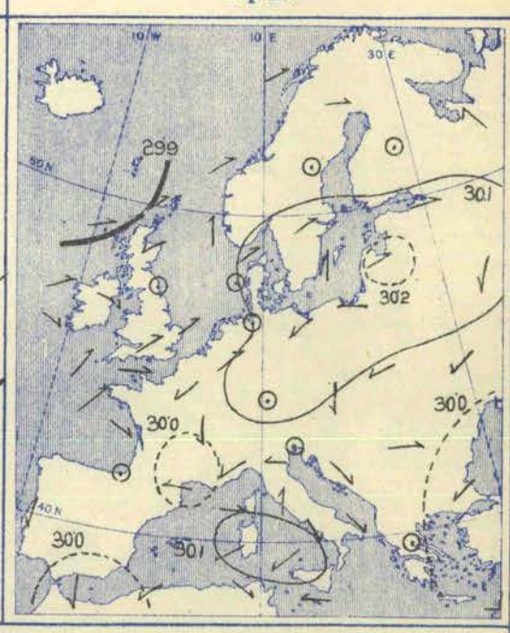


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning cloudy and unsettled over the greater part of our Islands, with showers at several of our northern stations, and fog over the St. George's Channel. Fine in the south of Ireland and also over the greater part of the Continent, but rain falling in the Gulf of Finland. Rain falling later at many of our western stations—heavily in places, and local showers in the east and south-east of England.

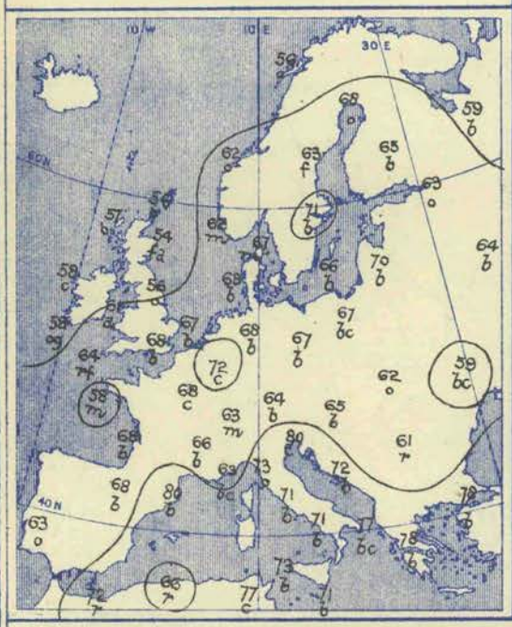
*Temperature* fallen in the west and north of our Islands, changed irregularly elsewhere. Morning readings highest, 77° at Barcelona, Athens and Patras, and 76° at Brindisi and Constantinople; above 70° in many parts of southern Europe, as well as at some stations over the Baltic and Gulf of Finland. Lowest, (1) 54° at Aberdeen, and 55° at Sumburgh Head and Leith; (2) 57° at Prague and 58° at Breslau. Rising during day to between 70° and 75° at most of the English stations; exceeding 80° in several parts of France and southern Europe and reaching 90° at Perpignan.

*Wind* light from the South-Westward in most parts of Great Britain, but Northerly or North-Westerly in Ireland. Light and variable over France and the greater part of central and southern Europe, but Northerly (North-East to North-West) over the Spanish Peninsula. Southerly to Westerly over Denmark and the south of Scandinavia; South-Easterly in the west of Norway. Subsequently becoming very variable in the west and north of our Islands.

*Barometer* highest, 30·1 ins. to 30·2 ins. in a broad band stretching from north-east to south-west across the whole of Europe. Lowest, 29·9 ins. and less in a shallow depression lying over and to the northward of Scotland, and also in another disturbance over the Black Sea. Small secondary systems appearing later over various parts of the United Kingdom, and barometer falling a little in most places.

## Tuesday, 11th July.

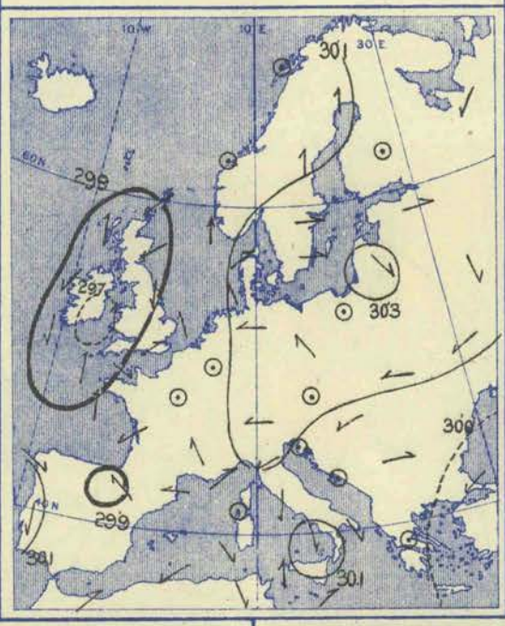
### Temperature and Weather. 8 a.m.

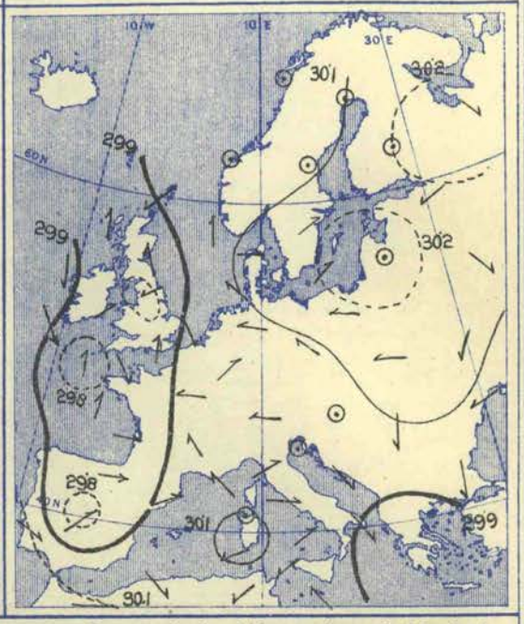


*Weather* in morning dull in all the more western and northern parts of the United Kingdom, with rain in many places; foggy in the western parts of the English Channel. Fine in east and south-east of England, as well as at most of the Continental stations, but dull in the west of Norway, as well as in Poland, eastern Austria and Portugal; rain falling at Hermanstadt. Heavy rain falling later at many of our own western and northern stations; thunderstorms or lightning only occurring in many parts of England and France.

*Temperature* risen over England and the western and central parts of the Continent; changed rather irregularly elsewhere. Morning readings highest, 80° at Barcelona and Trieste and 78° at Athens and Constantinople; above 70° at the Mediterranean and Adriatic stations generally, as well as over the Netherlands and at Stockholm. Lowest, 53° at Malin Head and Donaghadee, 54° at Aberdeen, and 56° at Bodö, Sumburgh Head, Wick, Shields, and Parsonstown. Remaining below 60° all day at several of the western and northern stations, but rising to between 80° and 85° over central and southern England; exceeding 85° in many parts of France and Spain and reaching 94° at Bordeaux.

### Barometer and Wind. 8 a.m. and 6 p.m.



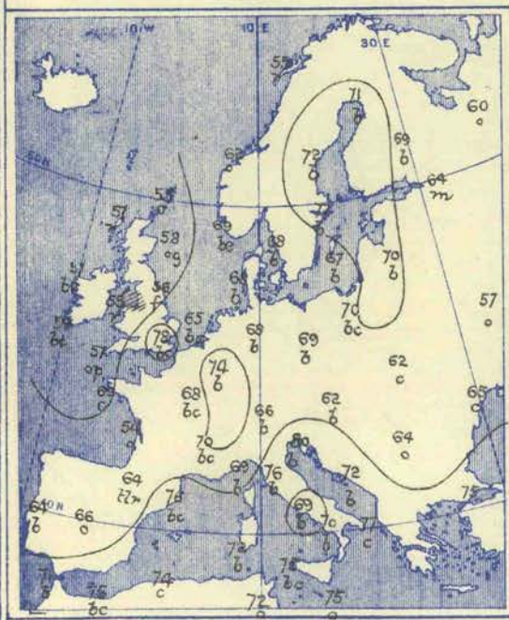


*Wind* light to moderate from the Southward over England, and also over the north of Scotland and the greater part of Scandinavia and Denmark; light from the Eastward in the east of Scotland; moderate from North in Ireland. Calm in the Netherlands; Easterly over France and south Germany; Westerly to Northerly over the Spanish Peninsula; variable over Italy and Austria; Northerly (North-West to North-East) over the greater part of Russia. No important change occurring over western Europe during day.

*Barometer* highest, 30·1 ins, to 30·3 ins. in an anticyclone extending from Russia over Denmark, Germany and northern Italy; 30·1 ins. and upwards in another system off the Portuguese coasts. Lowest, 29·8 ins. and less in a shallow but well-marked depression over the St. George's Channel and the east of Ireland. Depression subsequently moving slowly southwards, but new disturbance forming over the north of England.

## Wednesday, 12th July.

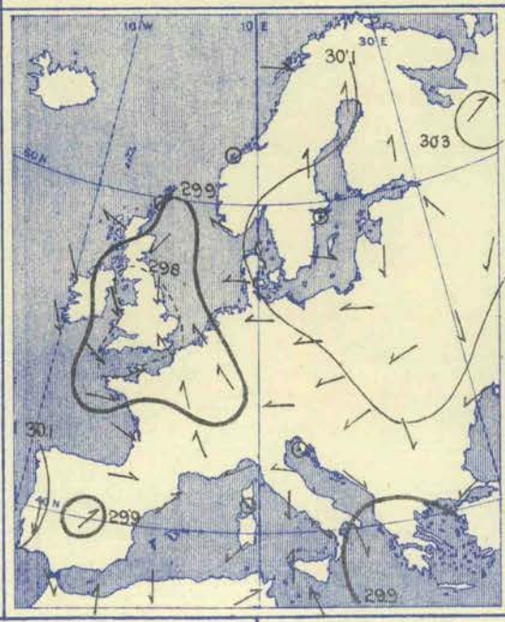
### Temperature and Weather. 8 a.m.

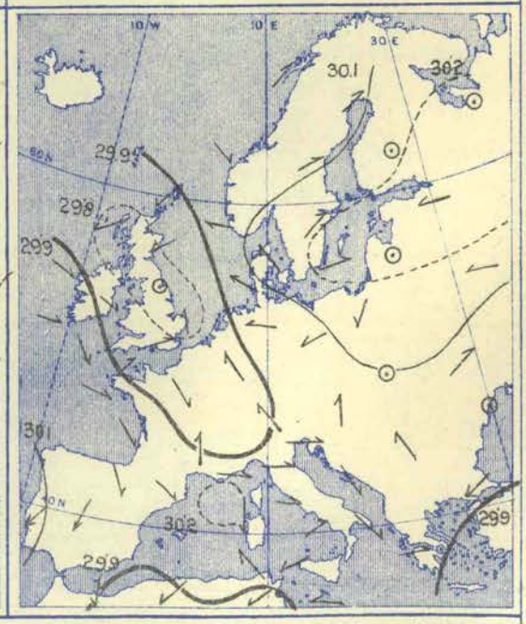


*Weather* in morning dull in the western and northern parts of the United Kingdom generally, with rain in many places, but fine on the west coasts of Ireland. Fine in the east and south-east of England, as well as over the greater part of the Continent, but dull in Spain and the south-western parts of France, with a thunderstorm at Biarritz. Improvement taking place later on our western coasts, but thunderstorms and rain occurring over all the northern and central parts of Great Britain, and slight showers falling in the south of England. Rain also reported in many parts of France and Belgium.

*Temperature* risen over central and south-eastern England, as well as in the western and northern parts of the Continent, fallen slightly in most other localities. Morning readings highest, (1) 80° at Trieste, and 77° at Brindisi; (2) 78° in London and 74° at Cape Gris Nez and Brussels; (3) 77° at Stockholm and 75° at Memel. Lowest, 52° at Malin Head and 53° at Wick and Donaghadee. Rising during day to 75° and upwards at several of the English stations and to 79° in London and at Loughborough; exceeding 80° in many parts of the Continent and reaching 90° at Carlsruhe, Nancy and Sanguinaire.

### Barometer and Wind. 8 a.m. and 6 p.m.



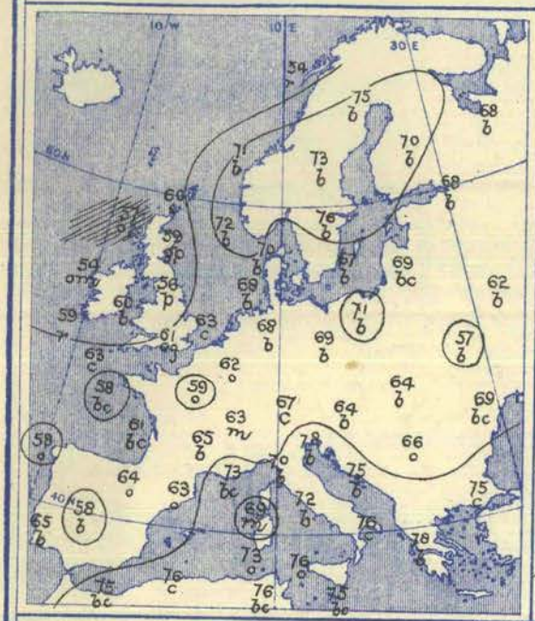


*Wind* light from the Eastward or South-Eastward over the eastern and central parts of England, and also over the Netherlands, central France, Germany, Denmark and the south of Norway; light from the North-Eastward in Scotland; moderate to fresh from the Northward on our western and the Portuguese coasts; moderate from West or North-West in the west of France. Variable in Austria and Italy; light from the Northward over the central and southern parts of Russia. Subsequently veering to the South-Westward in the south-east of England, but backing to North-West or West in Ireland.

*Barometer* highest, 30·1 ins. to 30·3 ins. in a large anticyclone covering the north-eastern and central parts of Europe; 30·1 ins. and upwards in another system off the Portuguese coasts. Lowest, 29·8 ins. and less in a shallow but well-marked depression over England and Wales; 29·9 ins. and less in another shallow disturbance over Greece. English depression subsequently breaking into two portions—one moving to the North Sea and the other northward across Scotland.

## Thursday, 13th July.

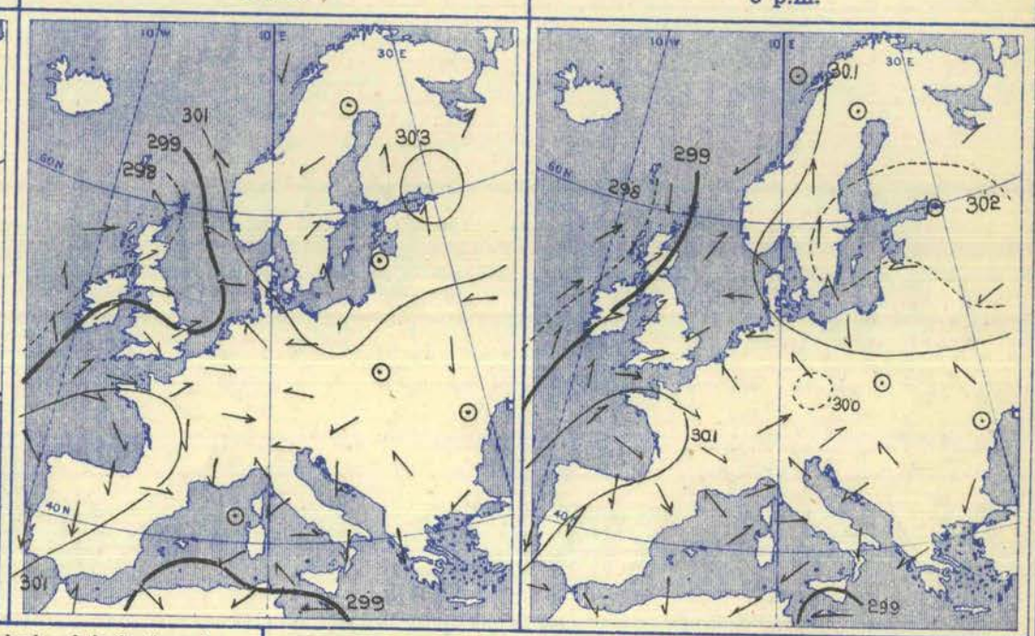
### Temperature and Weather. 8 a.m.



*Weather* in morning fair or fine over the greater part of our Islands and the Continent, but showery on the north-east coasts of Great Britain, and dull in the north of Scotland and the west and south of Ireland, with rain at Valencia. Dull also in several parts of France and Belgium. A little rain falling later at most of our own western and extreme northern stations, as well as at Bodö and the north-west of France, and in some parts of Austria and Italy.

*Temperature* fallen considerably over England, and to a less extent in France and Belgium, risen in most other countries. Morning readings highest, (1) 78° at Trieste and Patras, and 77° at Athens; (2) 76° at Stockholm, and 75° at Haparanda; above 70° at several of the Scandinavian and Baltic stations. Lowest, (1) 54° at Bodö; (2) 54° at Belmullet, and 56° at Malin Head and Shields. Rising during day to 70° and upwards in several parts of the United Kingdom, and to 75° in London; exceeding 80° in many parts of the Continent, and reaching 90° at the Scaw and also at San Fernando.

### Barometer and Wind. 8 a.m. 6 p.m.

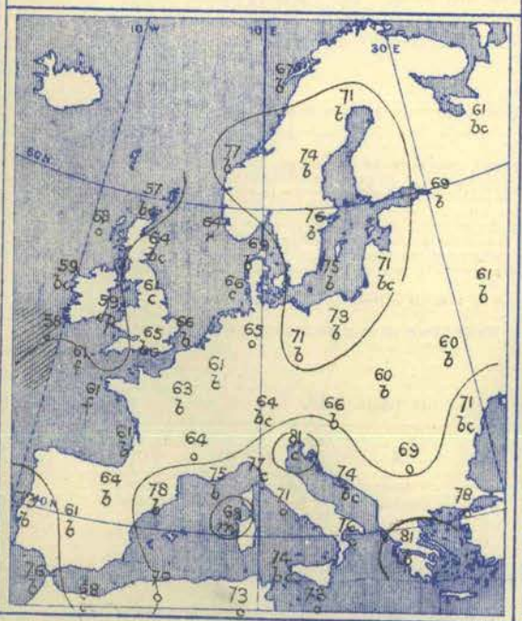


*Wind* moderate to fresh from the Southward in Ireland, and from the South-Westward in Scotland. Light from the Westward or North-Westward over the greater part of England; Easterly or South-Easterly over Norway, Denmark and Germany. Northerly over the Spanish Peninsula and the southern parts of France; variable over Russia, Austria and Italy. Subsequently backing to the South-Westward over England; no important change occurring elsewhere.

*Barometer* highest, 30·1 ins. to 30·3 ins. and upwards in an anticyclone covering the greater part of northern Europe; 30·1 ins. to 30·2 ins. in another system over the Bay of Biscay, and the western parts of France and Spain. Lowest, 29·8 ins. and less in two depressions—one lying off the north of Scotland, and the other off the west of Ireland; 29·9 ins. and less in a secondary "hollow" over the North Sea. Depressions to the west and north of our Islands subsequently passing away to the northward, and barometer rising in most parts of western Europe.

## Friday, 14th July.

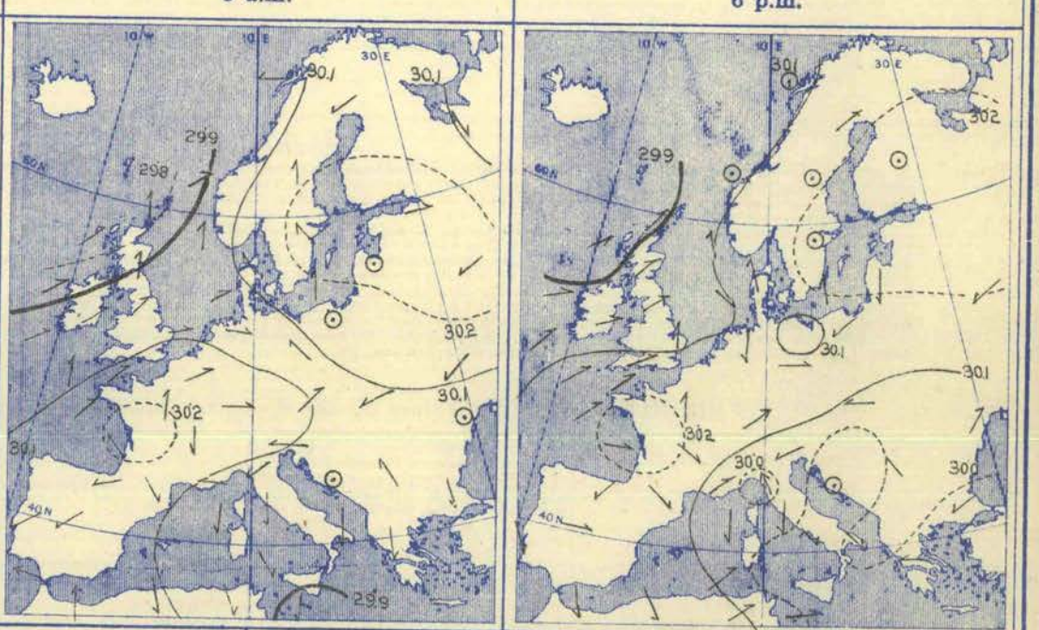
### Temperature and Weather. 8 a.m.



*Weather* in morning fine over the eastern and south-eastern parts of Great Britain, as well as at most of the Continental stations, but rain falling at Skudesnaes. Dull in the western and central parts of the United Kingdom, with showers at Malin Head and Holyhead; foggy at the mouth of the English Channel. Sky clearing later at many of our own western and central stations; rain falling in the north-west of France and also in some parts of Germany.

*Temperature* risen in most places, but fallen over the Netherlands and western Germany, as well as in Italy. Morning readings highest, (1) 81° at Trieste and Patras, and 78° at Barcelona, Athens and Constantinople; (2) 77° at Christiansund, and 76° at Stockholm. highest in our Islands, 66° at Yarmouth, and 65° in London and at Spurn Head and Wick; Rising during day to 70° and upwards in several parts of Great Britain, and to 75° in London. Exceeding 80° at many of the Continental stations—even those in the north—and reaching 86° at the Scaw; exceeding 85° at many places in Spain and the extreme south of France.

### Barometer and Wind. 8 a.m. 6 p.m.



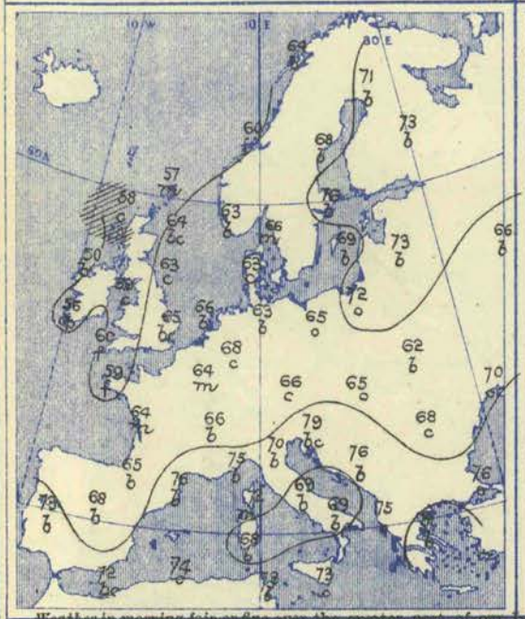
*Wind* light to moderate from the Southward or South-Westward over the greater part of our Islands and also in the west of Norway. Light from the Westward or North-Westward over the Netherlands and western Germany, but Easterly or South-Easterly over eastern Germany, Denmark and the south of Sweden. Calm or light and variable over Russia, Austria and northern Italy; Northerly over Greece and southern Italy; North-Westerly in the south of France; North-Easterly in Spain and the south-west of France. No important change occurring during day.

*Barometer* highest, 30·1 ins. to 30·2 ins. and upwards in an anticyclone covering the greater part of northern and eastern Europe, and also in another system over Algeria, Spain, France, the south-east of England, and western and southern Germany. Lowest, 29·8 ins. and less in a shallow depression lying off the north and north-west of Scotland; 29·9 ins. and less in another disturbance lying to the southward of Italy. No material change occurring later.

## Saturday, 15th July.

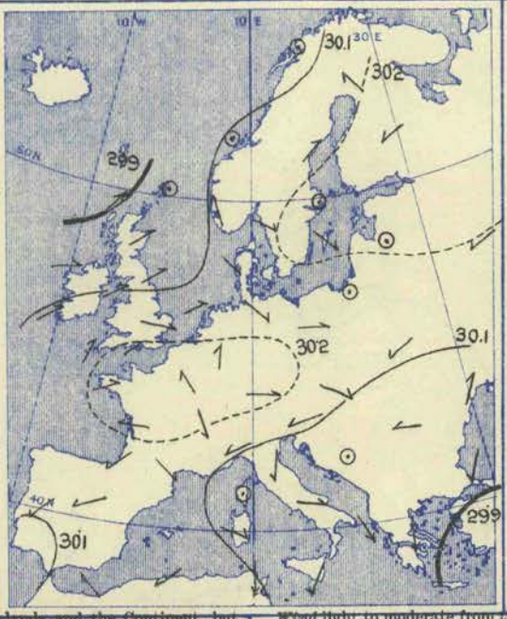
### Temperature and Weather.

#### 8 a.m.

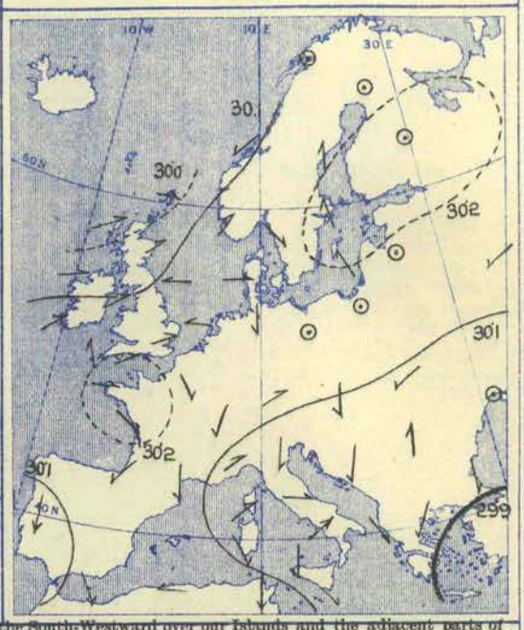


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fair or fine over the greater part of our Islands and the Continent, but foggy at the mouth of the English Channel, and dull in the south of Ireland, with showers at Valencia. Cloudy or dull also over Austria and eastern Germany. Showers falling later at many of our own western stations, and a considerable quantity of rain at Christiansund, as well as at Swinemunde and Berlin. Thunderstorm occurring at Moscow and lightning seen at Lyons.

*Temperature* fallen in the northern countries, changed rather irregularly elsewhere. Morning readings highest, (1) 82° at Patras, 81° at Athens, and 79° at Trieste; (2) 76° at Stockholm, and 73° at Kuopio, Riga and Swinemunde; highest in our Islands, 66° at Yarmouth. Rising during day to 70° and upwards in many parts of England, and to 75° in London. Exceeding 80° at some of the Swedish stations and also over the greater part of southern Europe; reaching 90° at Perpignan, Cette, Toulon, and Lisbon, and 91° at Cape Béarn.

*Wind* light to moderate from the South-Westward over our Islands and the adjacent parts of the Continent, and from the Southward over the greater part of Scandinavia, but calm on the west coasts of Norway. Light from the Westward or North-Westward over the greater part of Denmark, Germany, Austria and southern Italy. Variable over Russia and northern Italy; Northerly in the south of France; North-Easterly in Spain. Subsequently shifting to the Eastward on the east coasts of England; no important change occurring elsewhere.

*Barometer* highest, 30·1 ins. to 30·2 ins. and upwards in an anticyclone covering all but the south-eastern and extreme north-western parts of Europe. Lowest, 29·9 ins. and less in a shallow depression lying off the north-west of Scotland, and also, apparently, in another shallow area over Asia Minor. No material change taking place during day.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇉ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the beginning of the week a broad anticyclonic band stretched from north-east to south-west across the northern and central parts of Europe, the weather in the north-western and north-eastern regions being influenced—(1) by a depression which skirted our own extreme north-west coasts, and (2) by another disturbance lying over the Black Sea. The former disturbance occasioned rain in all the more western and northern parts of our Islands, while the latter was attended by considerable falls in many parts of Russia and Austria.

On the 10th the anticyclone divided into two portions—one of these taking up its position over northern, and the other over south-western Europe. In our Islands and France the weather was now affected by shallow depressions which formed immediately over those countries, the most important of these appearing over our own western coasts on the 11th, and afterwards moving north-eastwards and northwards, first to the North Sea, and afterwards to the north of Scotland. During the progress of this disturbance heavy rain fell at most of our own western and northern stations, and showers in many other parts of western Europe, while severe thunderstorms occurred over the northern and central parts of Great Britain as well as at some of the French stations.

Towards the end of the week the anticyclone over south-western Europe spread north-eastwards, and fine weather set in over all but the extreme western and northern parts of our Islands, where the conditions were affected by some depressions moving north-eastwards out in the Atlantic.

Temperature was mostly high for the time of year; readings above 80° were recorded in many parts of England on the 11th and later on over all the more northern parts of Europe; at the Skaw the thermometer rose to 90° both on the 12th and 13th.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 164.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 26·3 | ? | 21 | ? | WATERGATE (Emsworth) | 46·1 | ? | 41 | ? |
| STRATHPEFFER SPA | 25·8 | - 5·2 | 21 | - 4 | BRIGHTON | 55·8 | + 5·6 | 50 | + 4 |
| EDINBURGH | 25·0 | - 6·8 | 21 | - 6 | WORTHING | 55·1 | ? | 49 | ? |
| MORPETH | 25·5 | ? | 22 | ? | BOGNOR | 61·6* | ? | 55* | ? |
| NEWCASTLE-ON-TYNE | 23·5 | ? | 20 | ? | EASTBOURNE | 62·2 | +12·7 | 56 | +11 |
| OSWALDKIRK (Yorkshire) | 33·4 | - 1·1 | 29 | - 1 | VENTNOR HOSPITAL | 53·7 | ? | 48 | ? |
| LOWESTOFT | 47·9 | ? | 42 | ? | SOUTHPORT | 32·2 | ? | 28 | ? |
| HOLLESLEY BAY | 55·4 | ? | 49 | ? | COLWYN BAY | 41·0 | ? | 36 | ? |
| SHEFFIELD | 50·6 | ? | 44 | ? | ABERDOVEY | 28·2* | ? | 25* | ? |
| WORKSOP | 40·9 | + 6·1 | 36 | + 5 | TENBY | 39·4 | - 9·1 | 35 | - 7 |
| THURCASTON (Leicestershire) | 45·8 | + 2·1 | 40 | + 8 | NEWQUAY | 47·3 | + 0·3 | 43 | 0 |
| MARGATE | 44·5 | + 2·5 | 40 | + 2 | TORQUAY | 55·8* | + 2·4 | 51* | + 2 |
| WESTBOURNE (Emsworth) | 58·0* | +11·2 | 52* | +10 | GUERNSEY | | | | |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

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VOL. XVI. NO. 29. | *Third Series.* WEEK ENDING SATURDAY, JULY 22ND, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 170.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 71 | 40 | 63·6 | 50·6 | 56·6 | 2 above | 102 | +19 | 0 | 0 | 1063 | +160 | 617 | − 6 |
| | 1. SCOTLAND, EAST | 76 | 42 | 65·9 | 51·9 | 58·4 | 1 above | 115 | +14 | 0 | 0 | 1214 | + 88 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 79 | 47 | 68·3 | 54·7 | 61·0 | 3 above | 133 | +21 | 0 | 0 | 1389 | +228 | 456 | − 93 |
| | 3. ENGLAND, EAST | 90 | 47 | 75·2 | 56·6 | 65·3 | 5 above | 163 | +39 | 0 | 0 | 1633 | +237 | 421 | −196 |
| | 4. MIDLAND COUNTIES | 87 | 44 | 75·6 | 55·4 | 64·8 | 5 above | 160 | +40 | 0 | 0 | 1653 | +226 | 478 | −141 |
| | 5. ENGLAND SOUTH | 89 | 49 | 77·7 | 58·6 | 67·5 | 7 above | 179 | +49 | 0 | 0 | 1829 | +309 | 294 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 72 | 47 | 66·4 | 53·2 | 59·4 | 2 above | 122 | +19 | 0 | 0 | 1318* | +123 | 413 | − 49 |
| | 7. ENGLAND, N.W. | 79 | 47 | 69·2 | 56·2 | 62·2 | 3 above | 141 | +28 | 0 | 0 | 1517 | +242 | 313 | −146 |
| | 8. ENGLAND, S.W. | 85 | 43 | 74·0 | 55·5 | 64·1 | 4 above | 155 | +37 | 0 | 0 | 1750 | +296 | 240 | −121 |
| | 9. IRELAND, NORTH | 76 | 50 | 66·2 | 55·1 | 60·3 | 3 above | 128 | +24 | 0 | 0 | 1432 | +140 | 323 | − 72 |
| | 10. IRELAND, SOUTH | 76 | 48 | 68·8 | 56·8 | 62·4 | 4 above | 143 | +30 | 0 | 0 | 1740 | +253 | 245 | − 54 |
| | —CHANNEL ISLANDS | 83 | 54 | 73·6 | 58·8 | 65·7 | 4 above | 166 | +38 | 0 | 0 | 2091 | +460 | 81 | − 67 |

### Rainfall.

| | DISTRICTS. (See p. 170.) | For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 3 | 3 | 6 less | 122 | − 8 | 24·3 | 0·0 |
| | 1. SCOTLAND, EAST | 4 | 8 | 1 more | 116 | +10 | 19·2 | + 3·6 |
| | 2. ENGLAND, N.E. | 5 | 10 | 4 more | 105 | + 6 | 13·8 | + 1·0 |
| | 3. ENGLAND, EAST | 2 | 4 | 2 less | 92 | − 4 | 11·5 | − 1·2 |
| | 4. MIDLAND COUNTIES | 2 | 3 | 3 less | 92 | − 3 | 14·3 | + 0·2 |
| | 5. ENGLAND, SOUTH | 2 | 7 | 1 more | 80 | −11 | 12·1 | − 1·9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 3 | 4 | 5 less | 120 | + 9 | 27·9 | + 3·4 |
| | 7. ENGLAND, N.W. | 3 | 12 | 4 more | 108 | + 6 | 19·7 | + 3·6 |
| | 8. ENGLAND, S.W. | 1 | 4 | 4 less | 100 | − 3 | 21·8 | + 3·0 |
| | 9. IRELAND, NORTH | 4 | 4 | 4 less | 127 | + 7 | 20·5 | + 2·3 |
| | 10. IRELAND, SOUTH | 4 | 10 | 2 more | 110 | + 1 | 23·9 | + 4·1 |
| | — CHANNEL ISLANDS | 2 | 2 | 4 less | 97 | −12 | 15·8† | + 0·1† |

### Bright Sunshine.

| | DISTRICTS. (See p. 170.) | For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 28 | − 5 | 23 | − 3 | 762 | + 13 | 27 | 0 |
| | 1. SCOTLAND, EAST | 19 | −15 | 16 | −14 | 821 | + 14 | 31 | 0 |
| | 2. ENGLAND, N.E. | 19 | −15 | 17 | −12 | 805 | + 23 | 31 | + 1 |
| | 3. ENGLAND, EAST | 61 | +14 | 55 | +13 | 1098 | +133 | 41 | + 5 |
| | 4. MIDLAND COUNTIES | 47 | +12 | 43 | +12 | 972 | +166 | 38 | + 6 |
| | 5. ENGLAND, SOUTH | 80 | +33 | 72 | +30 | 1167 | +192 | 44 | + 7 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 24 | −14 | 21 | −12 | 838 | − 13 | 32 | 0 |
| | 7. ENGLAND, N.W. | 40 | − 1 | 36 | 0 | 967 | +120 | 37 | + 5 |
| | 8. ENGLAND, S.W. | 62 | +17 | 57 | +16 | 1115* | + 97 | 43 | + 4 |
| | 9. IRELAND, NORTH | 15 | −17 | 13 | −15 | 842 | + 39 | 32 | + 1 |
| | 10. IRELAND, SOUTH | 27 | − 7 | 24 | − 6 | 950 | + 49 | 36 | + 1 |
| | — CHANNEL ISLANDS | 75 | +29 | 69 | +27 | 1249 | +164 | 51 | + 7 |

*Bright Sunshine* —Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was generally dull in Ireland, Scotland, and the north-east of England, with rather frequent rain and occasional thunder and lightning. Over the greater part of England, however, it was mostly very fine and dry until towards the end of the week, when severe thunderstorms and extremely heavy local rains were experienced.

*Temperature* was above the mean in all districts, the excess ranging from 1° or 2° in Scotland, to 3° to 4° in Ireland, and to as much as 7° in England S. The highest of the maxima were recorded early in the week at the Irish and Scotch stations, but on the 20th in most parts of England. They ranged from 90° in England E. (at Cambridge), 89° in England S. (in London), and 87° in the Midland Counties, to 76° in Ireland, and to 71° in Scotland N. The lowest of the minima were registered soon after the week commenced over England and Ireland, and towards its close in Scotland; they varied from 40° in Scotland N. and 43° in England S.W., to 50° in Ireland N., and to 54° in the Channel Islands.

*Rainfall* varied greatly in different districts, being more than the mean in Scotland E., England N.W., N.E., N.W. and S., and in Ireland S., and less elsewhere. The largest daily amount recorded at any individual station was 3·36 ins. at Holyhead on the 20th. At Shaftesbury and Cullompton 1·9 ins. fell on Saturday (at the latter place in two hours); at Killarney 1·72 ins. was recorded on the same day in an hour and a half. The newspapers report that abnormally heavy rain was also experienced at Portsmouth.

*Bright Sunshine* was very irregularly distributed, being very deficient in the western and northern parts of the Kingdom, (excepting Scotland N.) and considerably above the normal in most parts of England. The percentage of the possible duration ranged from 72 in England S., 69 in the Channel Islands, and 57 in England S.W. to between 16 and 23 in Scotland, 13 and 24 in Ireland, and to 17 in England N.E.

*Barometer and Wind.*—During the earlier part of the week the distribution of pressure over all but our extreme north-western districts was mainly anticyclonic, the winds being generally light and variable. After Wednesday, however, the high pressure area moved away south-eastwards, while another anticyclone appeared over Scotland. Shallow thunderstorm disturbances now advanced from France and the Bay of Biscay, over the south and south-east of England, but at the end of the week the northern anticyclone and light Easterly winds were extending slowly southwards.

207 | 90 Wy. & S., Ltd.
913 | 70 7 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.
† The corresponding values in last week's Report should read "15·6" and "+ 0·5."

# II.—DATA from which the SUMMARY on page 169 has been calculated.

| Districts | Names of Stations. | Temperature. In Degrees Fahrenheit. Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Rainfall Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 63 | 45 | 60·6 | 50·3 | 55·1 | + 2·1 | 92 | 0 | 1 | 0·03 | − 0·55 | * | * | * | * |
| | Stornoway | 71 | 46 | 65·0 | 49·0 | 56·4 | + 1·9 | 101 | 0 | 3 | 0·17 | − 0·54 | 46·8 | +13·8 | 39 | +12 |
| | Wick | 68 | 40 | 64·3 | 48·3 | 55·7 | + 0·5 | 96 | 0 | 3 | 0·23 | − 0·35 | * | * | * | * |
| | Lairg ℌ | | | | | | | | | | | | * | * | * | * |
| | Glencarron ℌ | 69 | 46 | 62·7 | 50·4 | 56·1 | + 1·6 | 99 | 0 | 4 | 0·63 | − 0·77 | * | * | * | * |
| | Fort Augustus ℌ | 67 | 49 | 63·1 | 51·5 | 56·9 | + 0·6 | 104 | 0 | 3 | 0·20 | − 0·54 | 8·5 | −11·8 | 7 | 10 |
| | Fort William ℌ | 71 | 51 | 65·9 | 54·0 | 59·5 | + 3·0 | 123 | 0 | 4 | 0·38 | − 0·84 | 11·7 | −16·8 | 10 | −14 |
| 1. SCOTLAND E. | Nairn | 70 | 43 | 66·1 | 49·9 | 57·4 | 0·0 | 108 | 0 | 2 | 0·17 | − 0·50 | * | * | * | * |
| | Aberdeen | 70 | 50 | 65·9 | 53·3 | 59·2 | + 2·2 | 120 | 0 | 4 | 1·48 | + 0·78 | 31·1 | − 5·6 | 26 | − 5 |
| | Braemar ℌ | 66 | 42 | 62·5 | 48·5 | 55·0 | + 0·5 | 91 | 0 | 4 | 0·28 | − 0·38 | 10·8† | −21·2† | 9† | −18† |
| | Ochtertyre ℌ | 76 | 52 | 69·4 | 53·3 | 30·8 | + 2·6 | 132 | 0 | 5 | 0·80 | + 0·01 | * | * | * | * |
| | Leith | 70 | 53 | 66·1 | 54·1 | 59·7 | + 1·2 | 124 | 0 | 3 | 0·50 | − 0·17 | * | * | * | * |
| | Marchmont ℌ | 71 | 50 | 65·3 | 52·0 | 58·2 | + 1·7 | 113 | 0 | 6 | 1·39 | + 0·57 | 20·8 | −16·3 | 18 | −14 |
| 2. ENGLAND, N.E. | Alnwick Castle | 75 | 48 | 65·0 | 52·6 | 60·2 | + 3·0 | 127 | 0 | 5 | 1·20 | + 0·53 | * | * | * | * |
| | Durham | 79 | 47 | 69·6 | 53·5 | 61·0 | + 2·1 | 133 | 0 | 6 | 1·11 | + 0·38 | 18·1 | −17·6 | 16 | −15 |
| | Shields | 68 | 50 | 65·1 | 54·3 | 59·3 | + 1·6 | 121 | 0 | 6 | 1·26 | + 0·63 | * | * | * | * |
| | Scarborough ℳ | 77 | 50 | 69·2 | 55·2 | 61·7 | + 2·6 | 138 | 0 | 4 | 1·13 | + 0·45 | ? | ? | ? | ? |
| | Spurn Head | 79 | 57 | 68·7 | 58·1 | 63·0 | + 3·3 | 147 | 0 | 4 | 0·22 | − 0·20 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 84 | 50 | 77·7 | 56·2 | 66·2 | + 5·6 | 169 | 0 | 2 | 0·41 | − 0·33 | 54·8 | +12·6 | 49 | +12 |
| | Yarmouth | 72 | 56 | 67·9 | 59·1 | 63·2 | + 2·7 | 148 | 0 | 1 | 0·46 | − 0·21 | * | * | * | * |
| | Geldeston | 82 | 47 | 73·7 | 55·2 | 63·8 | + 3·4 | 153 | 0 | 1 | 0.78 | + 0·14 | 53·5 | + 8·0 | 48 | + 7 |
| | Cambridge | 90 | 48 | 81·4 | 55·6 | 67·6 | + 6·2 | 179 | 0 | 3 | 0·08 | − 0·53 | 59·3 | +16·5 | 53 | +15 |
| | Felixstowe | 78 | 51 | 71·9 | 58·9 | 65·0 | + 4·2 | 161 | 0 | 2 | 0·53 | ? | 75·0 | ? | 68 | ? |
| | Rothamsted | 84 | 50 | 78·4 | 54·8 | 65·8 | + 5·4 | 167 | 0 | 2 | 0·34 | − 0·31 | 63·1 | +17·8 | 57 | +16 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 83 | 46 | 73·9 | 54·6 | 63·6 | + 3·4 | 151 | 0 | 3 | 0·31 | − 0·34 | * | * | * | * |
| | Loughborough | 85 | 46 | 75·6 | 56·4 | 65·3 | + 3·9 | 163 | 0 | 2 | 0.41 | − 0·14 | * | * | * | * |
| | Stamford (Duddington) | 85 | 50 | 77·0 | 57·6 | 66·6 | + 5·4 | 172 | 0 | 3 | 0·18 | − 0·46 | * | * | * | * |
| | Cheadle ℳ | 76 | 51 | 70·5 | 55·8 | 62·6 | + 4·9 | 144 | 0 | 3 | 0·41 | − 0·33 | * | * | * | * |
| | Shirley (near Solihull) | 81 | 48 | 74·3 | 55·1 | 64·0 | + 4·0 | 154 | 0 | 1 | 0·27 | ? | * | * | * | * |
| | Churchstoke ℳ | 79 | 44 | 73·7 | 52·3 | 62·3 | + 4·2 | 142 | 0 | 2 | 0·10 | − 0·50 | 44·3 | + 6·0 | 40 | + 6 |
| | Hereford (Belmont) ℳ | 83 | 45 | 76·2 | 53·7 | 64·2 | + 4·0 | 155 | 0 | 1 | 0·05 | − 0·50 | * | * | * | * |
| | Cirencester | 87 | 49 | 79·1 | 54·7 | 66·1 | + 7·0 | 189 | 0 | 2 | 0·46 | − 0·26 | 69·7 | +28·5 | 63 | +26 |
| | Oxford | 86 | 52 | 79·9 | 58·1 | 68·2 | + 7·3 | 183 | 0 | 3 | 0·88 | + 0·25 | 66·1 | +24·3 | 60 | +22 |
| 5. ENGLAND, S. | London | 89 | 53 | 84·7 | 59·4 | 71·2 | + 8·9 | 204 | 0 | 3 | 0·56 | − 0·02 | 60·6† | +21·8† | 55† | +20† |
| | Cranley ℳ | 86 | 49 | 80·4 | 56·6 | 67·7 | + 5·8 | 180 | 0 | 2 | 0·19 | ? | * | * | * | * |
| | Dungeness | 76 | 57 | 72·4 | 60·3 | 65·9 | + 4·4 | 167 | 0 | 2 | 0·55 | + 0·07 | * | * | * | * |
| | Hastings (St. Leonards) | 84 | 56 | 77·6 | 59·7 | 68·0 | + 7·3 | 182 | 0 | 2 | 0·68 | + 0·08 | 86·1 | +36·2 | 78 | +33 |
| | Southampton | 85 | 53 | 80·2 | 59·4 | 69·1 | + 7·2 | 190 | 0 | 2 | 0·49 | − 0·16 | 78·2 | +32·1 | 71 | +29 |
| | Portland Bill | 73 | 51 | 70·4 | 56.9 | 63·2 | + 4·7 | 148 | 0 | 2 | 0·44 | ? | * | * | * | * |
| | Shaftesbury ℳ | 82 | 52 | 78·3 | 57·9 | 67·4 | + 8·8 | 178 | 0 | 2 | 1·92 | + 1·22 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 72 | 49 | 65·1 | 52·0 | 58·1 | + 1·1 | 113 | 0 | 4 | 0·36 | − 0·88 | * | * | * | * |
| | Glasgow | 70 | 54 | 66·9 | 55·4 | 60·9 | + 3·7 | 132 | 0 | 2 | 0·50 | − 0·30 | 18·2 | −13·8 | 16 | −11 |
| | Glenlee ℌ | 70 | 47 | 67·6 | 51·0 | 58·7 | + 1·2 | 117 | 0 | 4 | 0·17 | − 0·83 | * | * | * | * |
| | Douglas (Isle of Man) | 68 | 47 | 66·1 | 54·4 | 59·8 | + 2·5 | 125 | 0 | 3 | 0·58 | − 0·13 | 29·5 | −15·3 | 26 | −13 |
| 7. ENGLAND, N.W. | Stonyhurst | 73 | 50 | 69·1 | 55·2 | 61·7 | + 3·3 | 138 | 0 | 3 | 0·88 | − 0·17 | 43·8 | + 5·6 | 39 | + 6 |
| | Blackpool ℳ | 72 | 50 | 69·6 | 55·8 | 62·2 | + 2.6 | 141 | 0 | 4 | 0·58 | − 0·17 | 37·4 | − 2·7 | 33 | − 2 |
| | Manchester (Prestwich) | 79 | 47 | 72·0 | 54·8 | 62·8 | + 4.0 | 146 | 0 | 2 | 0·34 | − 0·56 | 43·7 | ? | 39 | ? |
| | Liverpool Obsy. (Bidston) | 72 | 55 | 69·0 | 57·4 | 62·8 | + 3·0 | 146 | 0 | 3 | 0·79 | + 0·08 | 37·0 | ? | 33 | ? |
| | Llandudno ℳ | 71 | 53 | 68·7 | 56·9 | 62·4 | + 2·1 | 143 | 0 | 3 | 0·68 | + 0·06 | 33·6 | − 4·4 | 30 | − 5 |
| | Holyhead | 70 | 55 | 66·7 | 56·9 | 61·5 | + 2·6 | 137 | 0 | 3 | 3·60 | + 3·02 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | ? 83 | 43 | ? 77·4 | 52·6 | ? 64·1 | ? + 5·1 | ? 155 | 0 | 0 | — | − 0·97 | * | * | * | * |
| | Pembroke | 75 | 55 | 68·3 | 58·0 | 62·8 | + 4·1 | 146 | 0 | 1 | 0·01 | − 0·61 | 45·3 | + 0·2 | 41 | + 1 |
| | Clifton | | | | | | | | | | | | * | * | * | * |
| | Arlington (N. Devon) | 82 | 45 | 75·0 | 52·7 | 63·1 | + 4·7 | 148 | 0 | 1 | 0·07 | − 1·10 | * | * | * | * |
| | Cullompton ℳ | 85 | 45 | 79·5 | 54·0 | 65·9 | + 5·1 | 167 | 0 | 1 | 1·92 | + 1·21 | 55·9 | +16·7 | 51 | +15 |
| | Falmouth | 73 | 55 | 71·3 | 58·9 | 64·7 | + 4·5 | 159 | 0 | 1 | 0·03 | − 0·73 | 71·4 | +23·1 | 66 | +22 |
| | Plymouth | 80 | 49 | 72·6 | 56·5 | 64·0 | + 2·8 | 154 | 0 | 2 | 0·51 | − 0·19 | 67·4 | +23·7 | 62 | +22 |
| 9. IRELAND, N. | Malin Head | 65 | 54 | 62·6 | 55·9 | 59·0 | + 2·0 | 119 | 0 | 3 | 0·27 | ? | * | * | * | * |
| | Londonderry | 73 | 50 | 69·5 | 55·1 | 61·8 | + 3·7 | 139 | 0 | 3 | 0·72 | − 0·13 | * | * | * | * |
| | Edenfel (Omagh) | 72 | 50 | 67·1 | 54·0 | 60·1 | + 3·4 | 127 | 0 | 5 | 0·31 | − 0·51 | * | * | * | * |
| | Belmullet | 69 | 54 | 64·3 | 56·3 | 60·0 | + 2·3 | 126 | 0 | 2 | 0·43 | − 0·45 | * | * | * | * |
| | Markree Castle | 76 | 51 | 69·0 | 55·9 | 62·0 | + 5·2 | 140 | 0 | 3 | 0·35 | − 0·55 | 14·1 | −14·9 | 12 | −14 |
| | Armagh | 71 | 52 | 66·8 | 55·4 | 60·7 | + 3·1 | 131 | 0 | 4 | 0·35 | − 0·42 | 15·4 | −16·5 | 14 | −14 |
| | Donaghadee | 68 | 52 | 63·9 | 53·3 | 58·2 | + 0·7 | 113 | 0 | 6 | 0·37 | − 0·32 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 72 | 54 | 69·3 | 58·2 | 63·4 | + 3·7 | 150 | 0 | 3 | 0·98 | + 0·34 | 26·4 | − 9·8 | 24 | − 8 |
| | Parsonstown | 74 | 48 | 69·4 | 56·1 | 62·3 | + 4·0 | 142 | 0 | 6 | 1·63 | + 0·91 | 22·7 | − 8·1 | 20 | − 7 |
| | Kilkenny | 76 | 50 | 70·4 | 55·1 | 62·2 | + 3·6 | 141 | 0 | 4 | 0·46 | − 0·15 | * | * | * | * |
| | Roche's Point | 72 | 54 | 67·0 | 57·1 | 61·7 | + 2·4 | 138 | 0 | 3 | 0·12 | − 0·65 | * | * | * | * |
| | Valencia | 72 | 54 | 67·7 | 57·7 | 62·4 | + 3·4 | 143 | 0 | 5 | 0·69 | − 0·28 | 31·2 | − 3·6 | 28 | − 3 |
| | Killarney | 75 | 51 | 70·0 | 56·6 | 62·8 | + 4·5 | 146 | 0 | 5 | 2·00 | ? | * | * | * | * |
| | Foynes | 74 | 52 | 67·8 | 56·8 | 61·9 | + 4·4 | 139 | 0 | 4 | 0·88 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 71 | 58 | 70·0 | 60·1 | 64·7 | + 4·4 | 159 | 0 | 2 | 0·02 | − 0·58 | 60·6 | ? | 56 | ? |
| | Jersey | 83 | 54 | 77·1 | 57·4 | 66·6 | + 4·2 | 172 | 0 | 2 | 0·43 | − 0·17 | 80·1 | +28·2 | 74 | +26 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

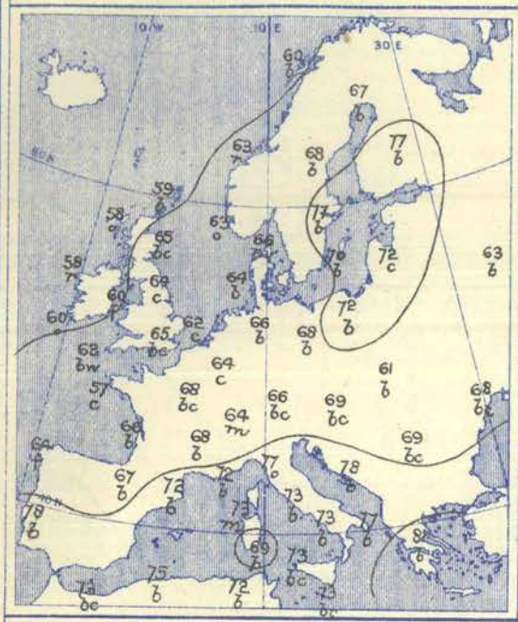
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 16th July.

### Temperature and Weather.

8 a.m.

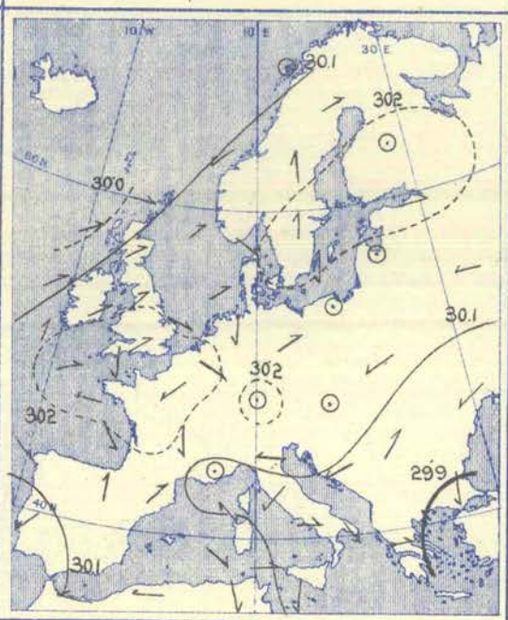


*Weather* in morning fine over England and the greater part of Continental Europe; foggy and dull in the western parts of Ireland, Scotland and Norway, with rain in places. Slight showers later in parts of Ireland, Scotland and Norway, and heavier local falls in parts of Austria and Germany; fine elsewhere.

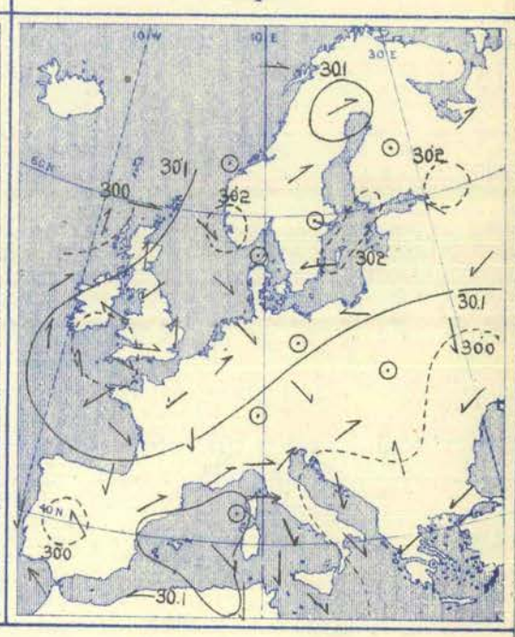
*Temperature* in morning highest, 81° at Patras, and above 70° almost all over the Mediterranean; also over Finland and the south of Sweden; above 60° over central Europe and nearly the whole of our Islands. Lowest, 57° at Malin Head, 58° at Stornoway, 59° at Sumburgh Head, 56° at Parsonstown, 57° at Roches Point. Rising later to 74° at Loughborough, 79° at the Scaw, in London, and at Paris, 82° at Lyons and Nice, 91° at Perpignan, 95° at Cagliari and in parts of Algeria.

### Barometer and Wind.

8 a.m.



6 p.m.



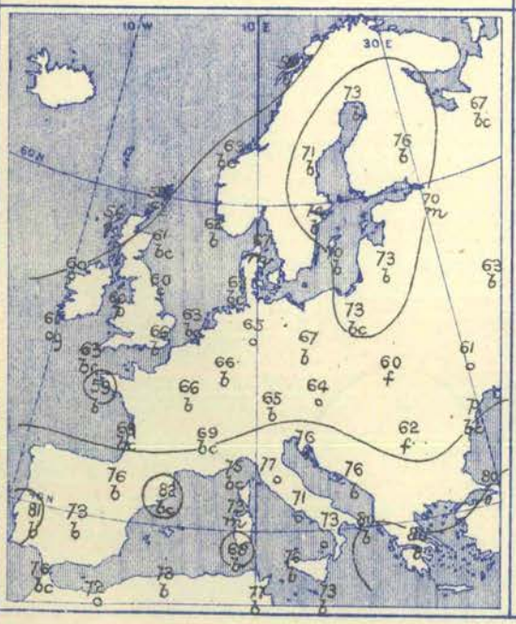
*Wind* nearly calm over England and Europe; light South-Westerly to Southerly in Ireland and Scotland. No decided change later.

*Barometer* highest, (1) 30·3 ins. in the Azores, and (2) 30·2 ins. and more in two anticyclonic systems—one covering the south of our Islands and the north-western and north-eastern parts of France, the other lying over Finland and the northern parts of the Baltic. Lowest, (1) 29·9 ins. over south-eastern Europe, and (2) below 30·0 ins. off our extreme north-western coasts. Changing little and irregularly all day.

## Monday, 17th July.

### Temperature and Weather.

8 a.m.

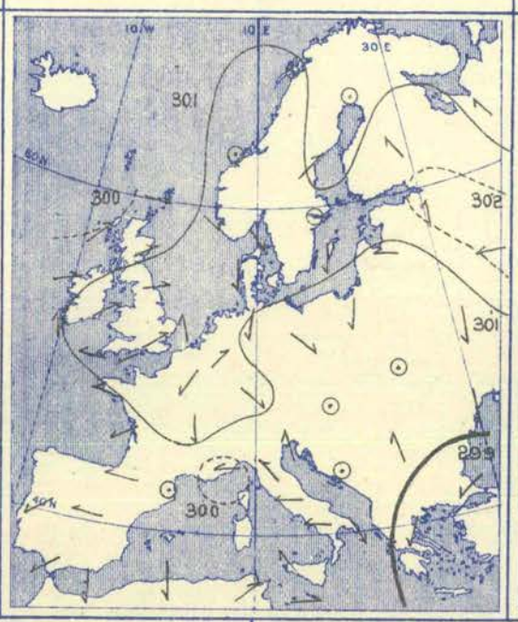


*Weather* in morning fine over Austria, Germany and Scandinavia, as well as over the North Sea and England, dull in Ireland and the west of Scotland, showery at Holyhead. Thunderstorms and little rain later over the east of Scotland and the northern and midland counties of England, slight rain at Stornoway and Wick, and a moderate amount at Munich.

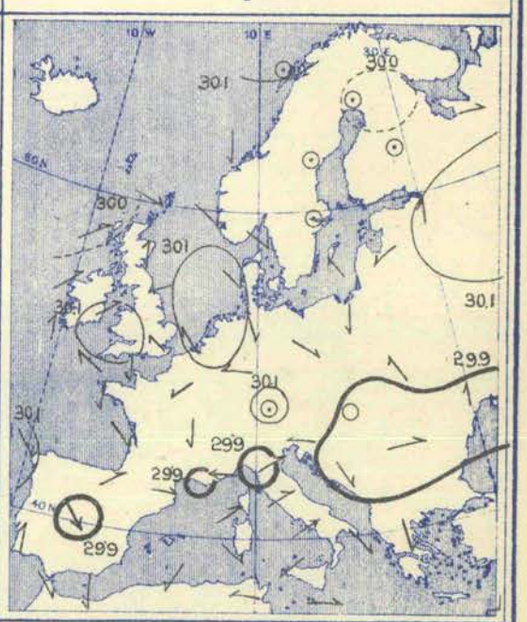
*Temperature* rising generally. Morning readings highest, (1) 80° at Constantinople, Athens and Brindisi, 81° at Lisbon, and above 70° at most of the Mediterranean stations; (2) 74° to 70° over Sweden and the Baltic Provinces. Lowest, 56° at Stornoway, 59° at Bodö, Sumburgh Head and Malin Head, 60° at Shields. Rising later to 80° or more over the central parts of England, to 81° at Paris and Biarritz, to 82° at Berlin, and 84° at Rochefort.

### Barometer and Wind.

8 a.m.



6 p.m.



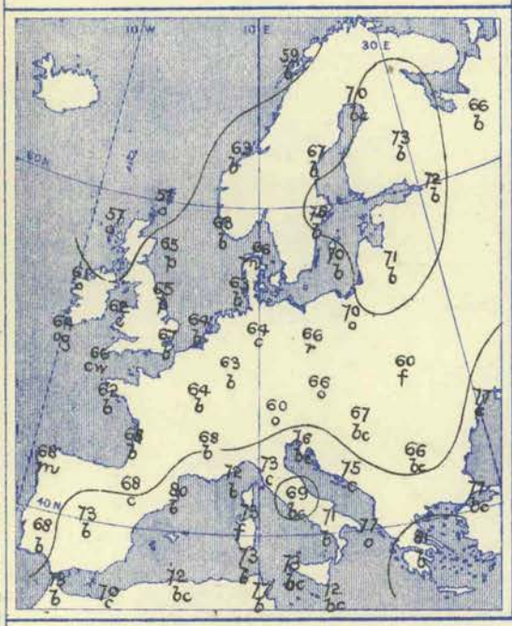
*Wind* light and very variable; chiefly Northerly over south-eastern Europe, Easterly over Spain and the Bay of Biscay, Southerly and South-westerly in Ireland and Scotland, North-westerly over the south of Scandinavia. No decided change later.

*Barometer* highest, 30·2 ins. and more at Moscow and St. Petersburg, and exceeding 30·1 ins. over Scandinavia, the North Sea, England, Ireland, and the northern half of France. Lowest, below 30·0 ins. off the north-west of Scotland, and also over the south-east of France, and below 29·9 ins. over the south-east of Europe. Falling a little later over our Islands and France.

## Tuesday, 18th July.

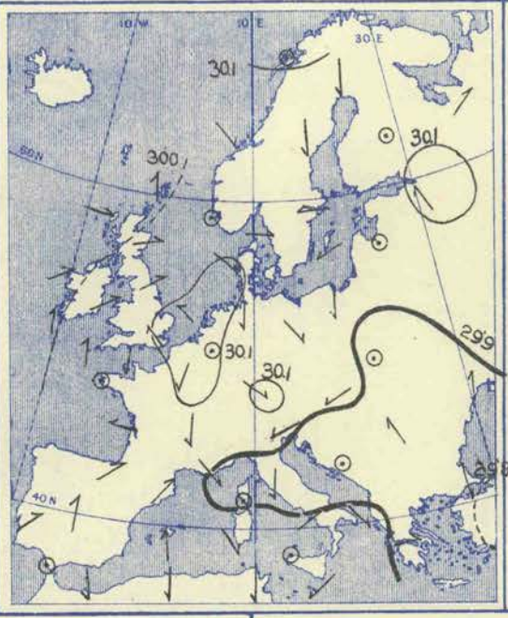
### Temperature and Weather.

#### 8 a.m.

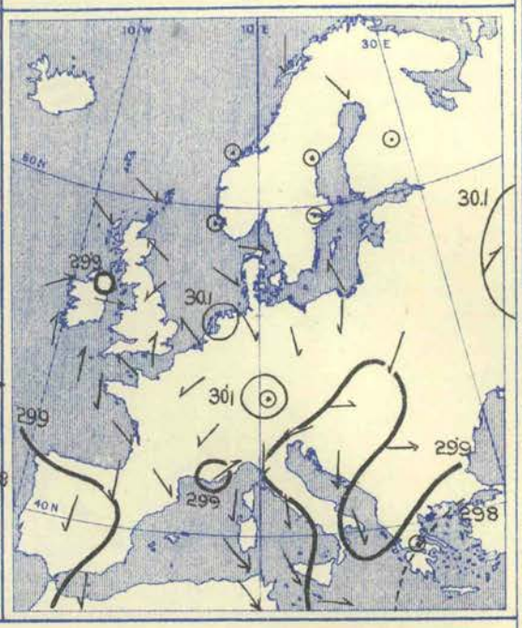


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fine and bright over most parts of the Continent and England; dull and unsettled in the west of Ireland and in Scotland, with showers at Aberdeen and Malin Head. A little rain later over the north-eastern, and north-central parts of Great Britain, and a few local showers in various widely separated parts of the Continent.

*Temperature* rising over England. Morning readings highest, (1) 81° at Athens, 80° at Barcelona, and above 70° at most of the Mediterranean stations; (2) 78° at Stockholm, 70° and more over Finland and the Baltic Provinces. Lowest, 57° in the north of Scotland, 59° at Malin Head and Donaghadee. Rising later to between 80° and 81° over England, to 81° at Paris, 82° at Berlin, Lorient and Lyons, to 86° at Leghorn, Palermo, Cette, and Aumale.

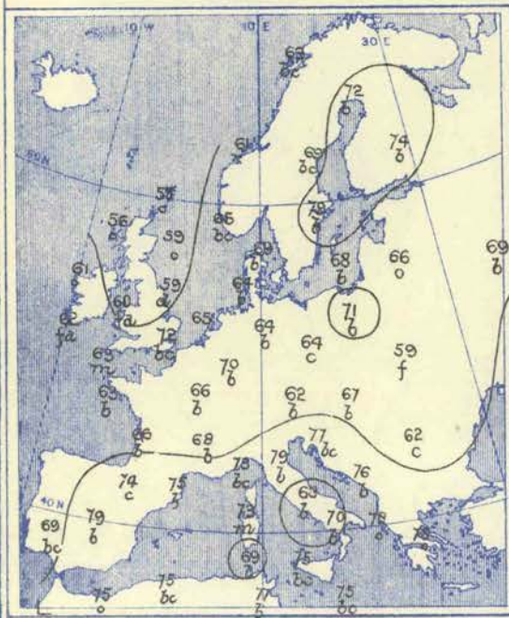
*Wind* very light generally; Southerly to Westerly over Ireland; chiefly from the Northward over eastern and northern Germany; very variable elsewhere. Somewhat variable later at our western stations, but not strong in force. A brisk North to North-West breeze setting in over the eastern parts of the Mediterranean.

*Barometer* in morning highest, 30·1 ins. and more over the south-east of our Islands, the north-east of France and the Netherlands, and exceeding 30·0 ins. over western and north-western Europe as a whole. Lowest, 29·8 ins. to 29·9 ins. over south-eastern Europe and below 30·0 ins. over the north and extreme west of the United Kingdom. Not changing much later, but irregularities appearing over Ireland and Austria.

## Wednesday, 19th July.

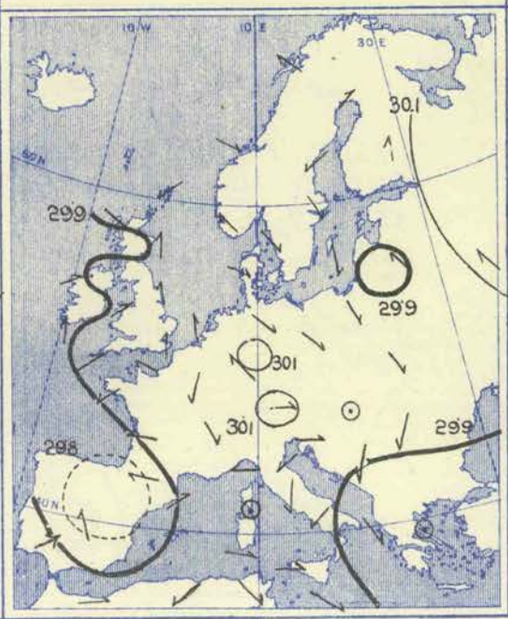
### Temperature and Weather.

#### 8 a.m.

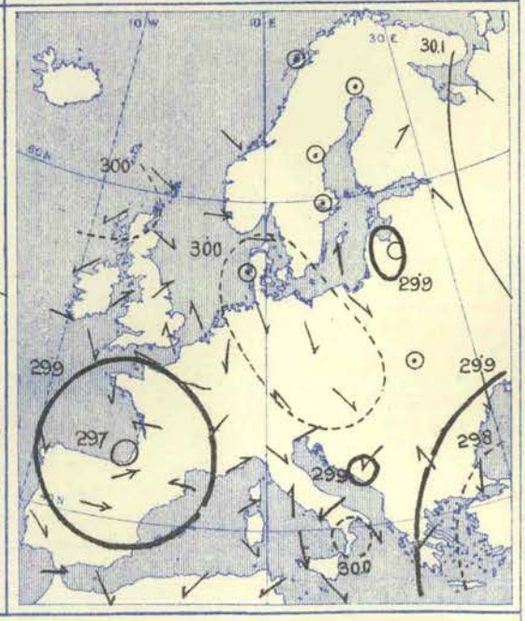


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fine over the greater part of Continental Europe and over England; dull and somewhat rainy over Ireland, Scotland, the north of England and Norway; foggy on the coasts of Wales and the south of Ireland. Rain continuing later at intervals in the west and north of our Islands and in Norway. Thunderstorms reported at Scilly and Biarritz; dense wet fog at Roches Point.

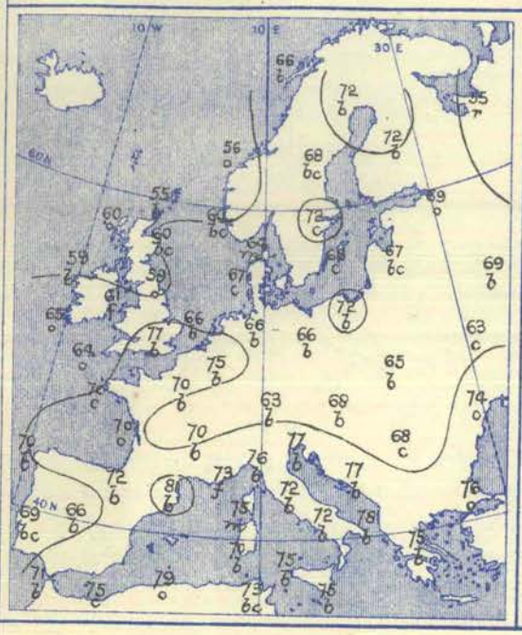
*Temperature* rising over central Europe, France and England; falling a little in Scotland. Morning readings highest, (1) 79° at Madrid, 78° at Patras and Brindisi, and considerably above 70° at most of the Mediterranean stations; (2) 74° at Kuopio, 73° at Stockholm and Helsingfors, 72° at Hangö and Haparanda. Lowest, below 60° all over Scotland and the extreme north of Ireland, 59° at Shields, 60° at Holyhead. Rising later to 87° in London, 85° at Loughborough, and much above 80° over England and France generally, to 86° at Nice, and to 99° at Rochefort.

*Wind* extremely variable in different parts of Europe—light and anticyclonic in most places, but cyclonic over the Spanish Peninsula, Ireland and Scotland, and over south-eastern Europe. A strong South-Westerly breeze spreading over Portugal and Biarritz later.

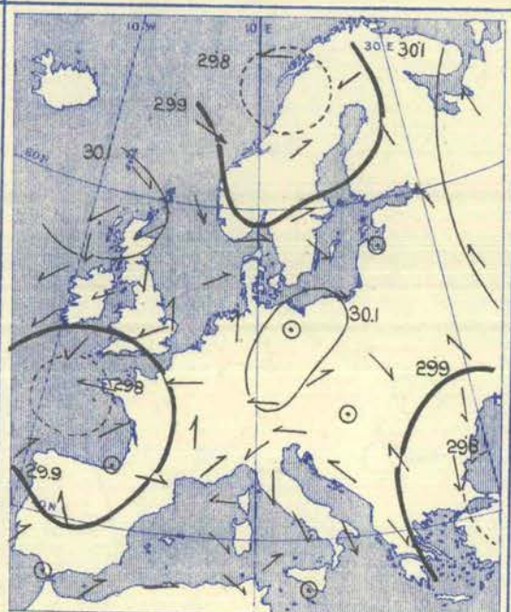
*Barometer* highest, (1) 30·15 ins. at Munich, and exceeding 30·0 ins. in an anticyclone extending over eastern France, western Germany, the Netherlands and Norway: (2) exceeding 30·1 ins. over the north-east of Russia. Lowest, below 29·9 ins. over Scotland and the west of Ireland; (2) below 29·8 ins. over Greece. Rising later over Ireland and Scotland, and a new anticyclone appearing in the north; falling in Spain and the south-west of France, and a shallow depression appearing near Bilbao.

## Thursday, 20th July.

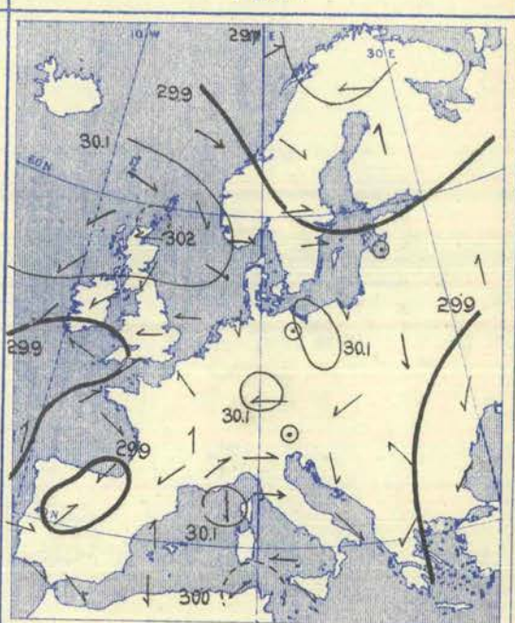
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over the greater part of the Continent and our Islands, but dull and unsettled looking at our south-western stations, on our north-east coasts and in some parts of Norway. Thunder, lightning and a little rain later over the south-east of England, in Ireland and some parts of Wales; exceedingly heavy rain (3·36 ins.) at Holyhead locally.

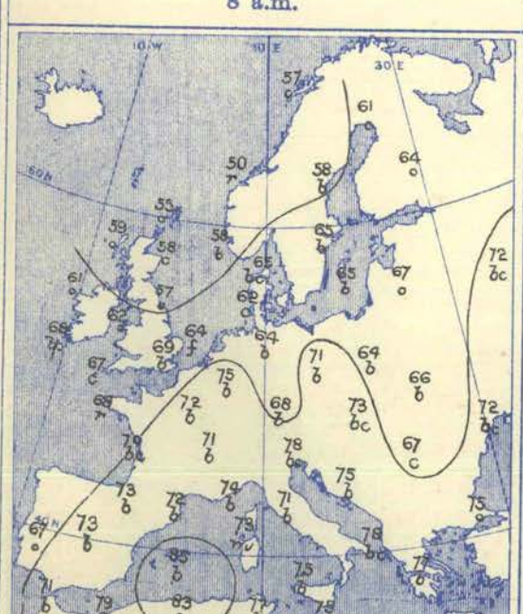
*Temperature* rising, except over Scandinavia. Highest morning readings, (1) 81° at Barcelona, 70° to 75° at the other Mediterranean stations; 77° in London, 76° at Oxford, 75° at the Helder, and above 60° except in the extreme north and north-west. Lowest, 55° at Archangel and at Sumburgh Head, 56° at Malin Head, 57° at Wick, Nairn and Donaghadee, 59° at Shields. Rising later to 83° at Jersey, 86° at Oxford, 89° in London, to 89° at Paris, 88° at Rochefort, 86° at Nice.

*Wind* chiefly Easterly to North-Easterly over our Islands and the Channel; Southerly over Portugal and Spain; very variable over the Continent. The Southerly wind (veering to West) spreading to our south-eastern counties at night, and wind becoming very variable over our Islands generally.

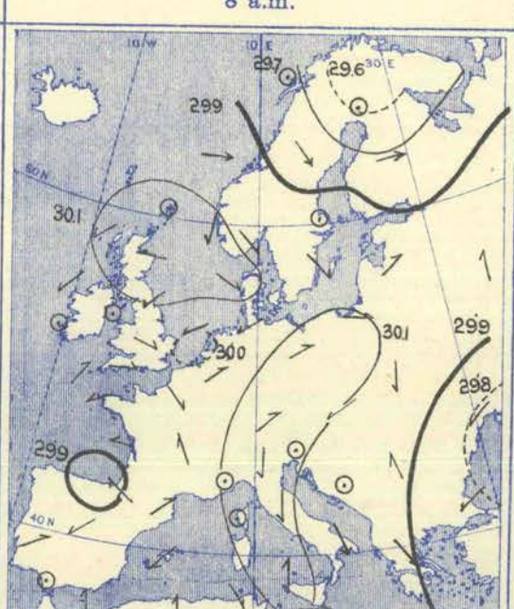
*Barometer* in morning highest, 30·1 ins. and more both over Scotland and Germany. Lowest, 29·8 ins. and less both over the Bay of Biscay and the north of Scandinavia; 29·8 ins. and less over Turkey in Asia. Changing later both little and irregularly; depression over the Bay of Biscay moving northwards and beginning to fill up.

## Friday, 21st July.

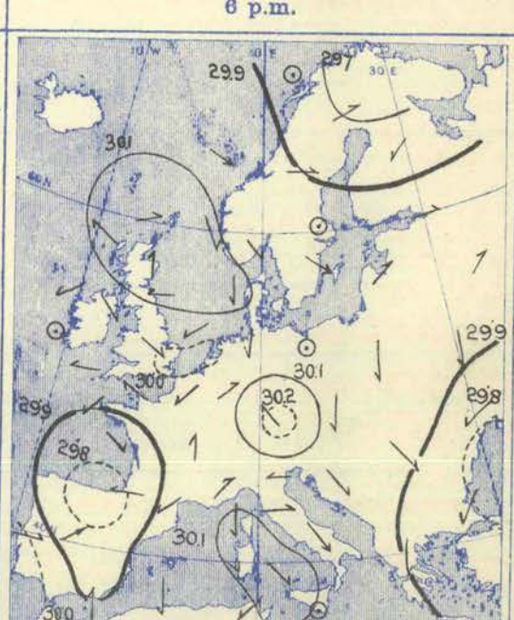
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over eastern, central Europe, and many parts of northern Europe and the south-eastern counties of England; dull and showery in Ireland, with thunderstorms in places; foggy at Roches Point and also at Yarmouth. Some rain later over Scandinavia, also over our south-eastern counties and the north of France, with thunder and lightning over our south-eastern counties. Weather fine over the northern parts of our Islands.

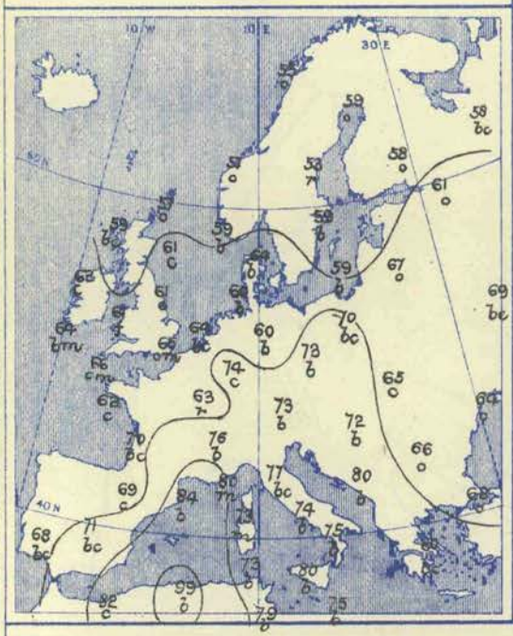
*Temperature* highest, 83° at Algiers, and above 80° at Aumale and Toulon; above 70° over the Mediterranean and Adriatic generally, 75° at Brussels, 72° at Paris, 71° at Limoges, 69° in London. Lowest, 55° at Sumburgh Head, 56° at Donaghadee, 57° on our north-east coasts and at Malin Head. Rising later to 82° at Oxford, to 89° in London, 86° at Brussels, 88° at Paris, 91° at Lorient, 95° at Rochefort and Nancy. Less high over Italy.

*Wind* light and anticyclonic over the east of France and west of Germany, as well as over Scotland and Norway. Light to strong (cyclonic) from North-West and West over the northern parts of Scandinavia and over Lapland, less strong from North-East over the south of Russia, from East over the Bay of Biscay, and from West-South-West at Lisbon. A North-Easterly wind over the north of Ireland later gaining strength.

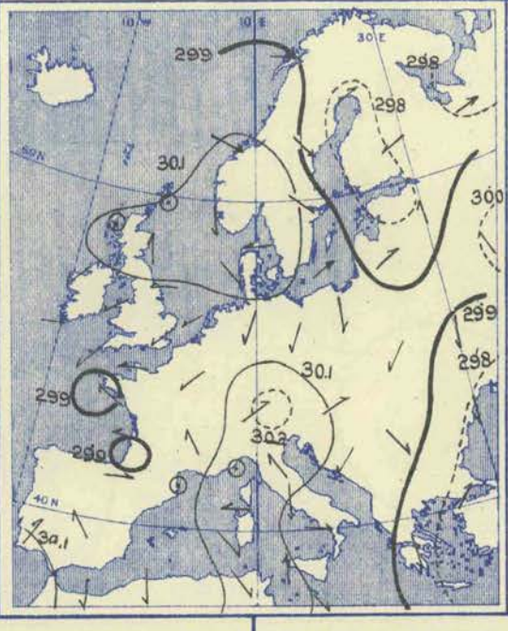
*Barometer* (1) 30·2 ins. and more to 30·1 ins. in an anticyclonic band covering Sardinia, the north of Italy, south-western and northern Germany; (2) 30·1 ins. and more in an anticyclone covering north Britain and the north-eastern shores of the North Sea. Lowest, (1) below 29·6 ins. in a depression over the east of Lapland; (2) below 29·9 ins. in another over the north of Spain; and (3) below 30·0 ins. in a third over Holland and the south-east of England. The Spanish depression becoming deeper later; the one over Lapland beginning to fill up; that over our south-eastern stations altering slightly in shape, and uniting with that moving northwards from Spain.

## Saturday, 22nd July.

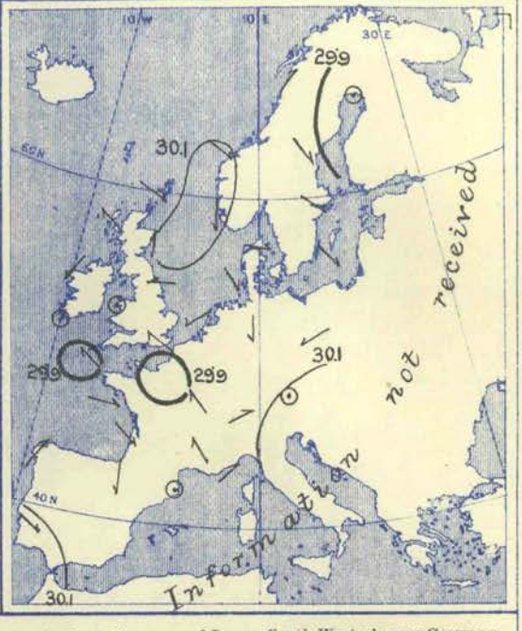
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over eastern and central Europe and in Scotland; fair over Ireland (but foggy in several places); cloudy, changeable and unsettled over England and France. A temporary improvement later in the last named districts, but becoming thundery and very rainy again at night (amounts in London varying from 0·15 in. to an inch and a quarter). Smaller quantities on our north-eastern coasts also.

*Temperature* inclined to give way at first over France, England and Sweden. Morning readings, 99° at Algiers, 84° at Barcelona, 80° at Athens and Toulon; exceeding 70° almost all over Spain and the south and south-east of France, 66° at Scilly, 65° in London. Lowest, 55° at Bodö, 57° at Christiansund, Sumburgh Head and Malin Head, 60° at Nairn, Leith and Parsonstown. Rising later to only 63° at Loughborough, to 84° in London and at Munich, to 86° at Berlin, 87° at Paris and Brussels, 91° at Belfort, 95° at Lyons.

*Wind* (1) Westerly at Biarritz, Southerly at Limoges and Lyons, South-Westerly over Germany, Easterly to North-Easterly over our Islands and the north of France; (2) North-Westerly at Christiansund, North-Westerly to South-Westerly over the south of Sweden, Southerly to Easterly over the south of Finland. Another cyclonic circulation over the Black Sea. A Westerly breeze spreading over France later, but wind remaining Easterly over our Islands.

*Barometer* highest, 30·1 ins. to 30·2 ins. in an anticyclone of irregular form lying over the North Sea, Scotland and the south of Norway, and also over Switzerland and south Germany. Lowest, (1) 29·9 ins. and less to 30·0 ins. over the Bay of Biscay, the west of France and the southern counties of England; (2) 29·8 ins. and less to 29·9 ins. in another depression over Finland and the Gulf of Bothnia; (3) 29·8 ins. and less over the Black Sea. Depressions over the Bay of Biscay and France moving north-eastwards later.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟶⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During the earlier part of this week a broad band of high pressure, in which the readings varied from 30·2 ins. and more to 30·1 ins., stretched from the Spanish Peninsula across France, England, the North Sea and Denmark to the north of Europe. In this band the winds were light and variable, the weather fine excepting one or two local and temporary thunder-showers, and temperature high in the daytime.

After Wednesday this high pressure band moved south-eastwards, and at night a new anticyclone appeared over Scotland, and finally spread to the North Sea and Scandinavia. Temperature became very high over England and France with the South-Easterly winds so caused, but, as at the same time shallow "thunderstorm" depressions began to appear over the Bay of Biscay, France and the Channel, and to move northwards, the latter part of the week brought rain and thunderstorms to our southern counties, while Scotland was visited by fairer weather generally. Germany also, and the Baltic, had thunderstorms and rain.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 170.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 44·0 | ? | 36 | ? | WATERGATE (Emsworth) | 78·8 | ? | 72 | ? |
| STRATHPEFFER SPA | 26·3 | - 2·2 | 22 | - 2 | BRIGHTON | 82·8 | +33·6 | 75 | +29 |
| EDINBURGH | 13·2 | -18·0 | 11 | -16 | WORTHING | 79·7 | ? | 72 | ? |
| MORPETH | 20·7 | ? | 18 | ? | BOGNOR | 84·1* | ? | 76* | ? |
| NEWCASTLE-ON-TYNE | 14·0 | ? | 12 | ? | EASTBOURNE | 87·0 | +37·6 | 79 | +34 |
| OSWALDKIRK (Yorkshire) | 23·6 | -10·8 | 21 | - 9 | VENTNOR HOSPITAL | ?79·5 | ? | ?72 | ? |
| LOWESTOFT | 52·2 | ? | 47 | ? | SOUTHPORT | 41·1 | ? | 36 | ? |
| HOLLESLEY BAY | 72·0 | ? | 65 | ? | COLWYN BAY | 34·1 | ? | 30 | ? |
| SHEFFIELD | 28·9 | ? | 26 | ? | ABERDOVEY | 49·1* | ? | 44* | ? |
| WORKSOP | 23·4 | -11·6 | 21 | -10 | TENBY | | | | |
| THURCASTON (Leicestershire) | 51·1 | +14·5 | 46 | +14 | NEWQUAY | 60·5 | +13·0 | 56 | +13 |
| MARGATE | 72·6 | +29·7 | 66 | +27 | TORQUAY | 70·9 | +24·9 | 65 | +23 |
| WESTBOURNE (Emsworth) | 85·4* | +38·4 | 78* | +35 | GUERNSEY | 83·8* | +33·8 | 78* | +29 |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

Wyman & Sons, Ltd., Lith., 63, Carter Lane.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 30. | *Third Series.*

WEEK ENDING SATURDAY, JULY 29TH, 1899.

[*Price 6d.*
*Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 176.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 71 | 46 | 62·6 | 52·0 | 57·0 | 2 above | 105 | +20 | 0 | 0 | 1168 | +180 | 617 | − 6 |
| | 1. SCOTLAND, EAST | 76 | 48 | 66·5 | 53·4 | 59·5 | 2 above | 123 | +20 | 0 | 0 | 1337 | +108 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 76 | 49 | 68·4 | 54·1 | 60·8 | 2 above | 132 | +18 | 0 | 0 | 1521 | +246 | 456 | − 93 |
| | 3. ENGLAND, EAST | 80 | 47 | 72·0 | 54·0 | 62·4 | 2 above | 143 | +17 | 0 | 0 | 1776 | +254 | 421 | −196 |
| | 4. MIDLAND COUNTIES | 80 | 44 | 71·1 | 52·5 | 61·2 | 1 above | 134 | +13 | 0 | 0 | 1787 | +239 | 478 | −141 |
| | 5. ENGLAND SOUTH | 85 | 50 | 73·1 | 56·7 | 64·3 | 4 above | 156 | +24 | 0 | 0 | 1985 | +333 | 294 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 70 | 47 | 64·1 | 53·3 | 58·3 | 1 above | 114 | + 9 | 0 | 0 | 1432 | +132 | 413 | − 49 |
| | 7. ENGLAND, N.W. | 76 | 48 | 65·9 | 55·0 | 60·1 | 1 above | 127 | +12 | 0 | 0 | 1644 | +254 | 313 | −146 |
| | 8. ENGLAND, S.W. | 80 | 41 | 70·3 | 54·9 | 62·1 | 2 above | 141 | +21 | 0 | 0 | 1891 | +317 | 240 | −121 |
| | 9. IRELAND, NORTH | 75 | 41 | 64·8 | 53·5 | 58·7 | 1 above | 117 | +11 | 0 | 0 | 1549 | +151 | 323 | − 72 |
| | 10. IRELAND, SOUTH | 75 | 45 | 67·1 | 53·7 | 60·0 | 1 above | 126 | +12 | 0 | 0 | 1866 | +265 | 245 | − 54 |
| | —CHANNEL ISLANDS— | 75 | 54 | 69·7 | 59·0 | 63·9 | 2 above | 153 | +22 | 0 | 0 | 2244 | +482 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 176.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 5 | 13 | 4 more | 127 | − 8 | 25·6 | + 0·4 | 20 | − 8 | 17 | − 7 | 782 | + 5 | 27 | 0 |
| | 1. SCOTLAND, EAST | 3 | 3 | 5 less | 119 | +10 | 19·5 | + 3·1 | 35 | + 2 | 31 | + 2 | 856 | + 17 | 31 | 0 |
| | 2. ENGLAND, N.E. | 3 | 2 | 5 less | 108 | + 5 | 14·1* | + 0·7 | 31 | − 3 | 28 | − 2 | 836 | + 23 | 31 | + 1 |
| | 3. ENGLAND, EAST | 2 | 7 | 0 (average) | 94 | − 6 | 12·2 | − 1·2 | 55 | +11 | 50 | +10 | 1153 | +144 | 41 | + 5 |
| | 4. MIDLAND COUNTIES | 1 | 1 | 6 less | 93 | − 5 | 14·4 | − 0·4 | 49 | +13 | 45 | +12 | 1022* | +179 | 39 | + 7 |
| | 5. ENGLAND, SOUTH | 1 | 2 | 5 less | 81 | −13 | 12·3 | − 2·3 | 64 | +18 | 59 | +16 | 1231 | +210 | 45 | + 8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 4 | 6 | 4 less | 124 | + 9 | 28·5 | + 3·0 | 26 | 0 | 33 | 0 | 874 | − 14 | 32 | 0 |
| | 7. ENGLAND, N.W. | 2 | 1 | 8 less | 110 | + 4 | 19·8 | + 2·9 | 38 | − 2 | 35 | − 1 | 1005 | +118 | 37 | + 4 |
| | 8. ENGLAND, S.W. | 1 | 1 | 8 less | 101 | − 6 | 21·9 | + 2·2 | 72 | +28 | 67 | +26 | 1186* | +125 | 44 | + 5 |
| | 9. IRELAND, NORTH | 3 | 2 | 7 less | 130 | + 6 | 20·7 | + 1·6 | 27 | − 2 | 25 | − 2 | 869 | + 37 | 32 | + 1 |
| | 10. IRELAND, SOUTH | 1 | 1 | 7 less | 111 | − 2 | 24·0 | + 3·4 | 33 | 0 | 30 | 0 | 983 | + 49 | 36 | + 2 |
| | — CHANNEL ISLANDS— | 1 | less than ½ | 7 less | 98 | −15 | 15·8 | − 0·5 | 68 | +14 | 64 | +13 | 1317 | +179 | 51 | + 6 |

*Bright Sunshine* —Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather.*—After the 23rd, when thunderstorms and heavy rains occurred in many parts of our eastern and southern counties, the weather over England was mostly fair, warm and dry. In Ireland and Scotland showers were rather frequent, but at the close of the week the fair, dry weather was extending also to those countries.

*Temperature* was above the mean over the whole Kingdom, the excess amounting in most districts to only 1° or 2°, but in England S. to as many as 4°. The highest readings were observed at various times in the different districts, bnt mostly either between the 24th or 26th, or on the 29th. Over the central and south-western parts of England the thermometer touched 80°, and in England S. it rose to 85°; in the western and northern parts of the Kingdom as a whole, however, it went very little above 75°, and in Scotland W. only reached 70°. The lowest readings occurred on various dates in the latter half of the week, when the thermometer fell to 41° in England S.W. and Ireland N., and to 44° in the Midland Counties. In England S. it did not fall below 50°, and in the Channel Islands only reached 54°.

*Rainfall* was considerably less than the mean in all districts, excepting Scotland N. and England E. In the former district the amout was considerably more than the mean, while in England E. it was just equal to it, the result, in the latter case, being due to the heavy thunder rains which occurred on the 23rd.

*Bright Sunshine* was in excess of the mean over the eastern, central, and southern parts of Great Britian, but was either normal or slightly deficient in other districts. The percentage of the possible duration ranged from 67 in England S.W., 64 in the Channel Islands and 59 in England S. to 25 in Ireland N., and 17 in Scotland N.

*Barometer and Wind.*—Shortly after the commencement of the week the shallow thunderstorm depressions, which had previously advanced over England from the south moved away to Germany, while an anticyclone spread from the Atlantic over France and the southern parts of our Islands generally, the prevailing winds being at first variable, then North-Westerly and finally Westerly. In the extreme north where the conditions were affected by some large depressions which moved eastwards across Scandinavia, the wind was often strong in force, and on the nights of the 25th and 28th it blew a slight gale from the West and North-West. Towards the close of the week the anticyclone in the south began to spread northwards, and the wind veered to the North-West in many parts of our Islands.

207 | 90 Wy. & S., Ltd.
913 | 70 7 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 175 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 64 | 46 | 59·1 | 48·4 | 53·4 | + 0·2 | 80 | 0 | 6 | 1·11 | + 0·48 | * | * | * | * |
| | Stornoway | 66 | 46 | 62·3 | 50·9 | 56·2 | + 1·5 | 99 | 0 | 6 | 0·95 | + 0·21 | 19·7 | −10·3 | 17 | − 9 |
| | Wick | 70 | 46 | 65·0 | 50·3 | 57·1 | + 1·9 | 106 | 0 | 6 | 0·68 | + 0·08 | * | * | * | * |
| | Lairg Ⓢ | 71 | 49 | 64·4 | 53·7 | 58·7 | + 4·7 | 117 | 0 | 6 | 0.55 | − 0·21 | * | * | * | * |
| | Glencarron Ⓢ | 68? | 49? | 60·9 | 52·1? | 56·2? | + 1·7? | 99? | 0 | 7 | 3·61 | + 2·13 | * | * | * | * |
| | Fort Augustus Ⓢ | 68 | 50 | 63·7 | 54·4 | 58·7 | + 2·4 | 117 | 0 | 3 | 0·63 | − 0·15 | 18·7 | + 1·0 | 16 | 0 |
| | Fort William Ⓢ | 68 | 52 | 63·1 | 54·5 | 58·5 | + 2·0 | 116 | 0 | 4 | 1·75 | + 0·45 | 12·4 | −13·1 | 11 | −10 |
| 1. SCOTLAND E. | Nairn | 70 | 49 | 66·3 | 53·1 | 59·2 | + 1·7 | 120 | 0 | 3 | 0·62 | − 0·10 | * | * | * | * |
| | Aberdeen | 75 | 52 | 67·0 | 55·3 | 61·1 | + 4·1 | 134 | 0 | 4 | 0·43 | − 0·34 | 38·6 | + 3·7 | 34 | + 4 |
| | Braemar Ⓢ | 69 | 48 | 64·1 | 50·8 | 57·0 | + 2·5 | 105 | 0 | 2 | 0·31 | − 0·38 | 36·0† | − 6·2† | 31† | + 5† |
| | Ochtertyre Ⓢ | 76 | 51 | 68·0 | 53·4 | 60·2 | + 2·0 | 127 | 0 | 2 | 0·15 | − 0·73 | * | * | * | * |
| | Leith | 72 | 51 | 68·0 | 54·6 | 60.8 | + 2·0 | 132 | 0 | 4 | 0·14 | − 0·56 | * | * | * | * |
| | Marchmont Ⓢ | 69 | 50 | 65·3 | 52·6 | 58·5 | + 2·0 | 116 | 0 | 3 | 0·17 | − 0·71 | 33·5 | − 2.1 | 30 | − 2 |
| 2. ENGLAND, N.E. | Alnwick Castle | 74 | 49 | 67·9 | 54·1 | 60·5 | + 3·5 | 130 | 0 | 3 | 0·38 | − 0·34 | * | * | * | * |
| | Durham | 74 | 49 | 69·1 | 52·8 | 60·4 | + 1·5 | 129 | 0 | 3 | 0·06 | − 0·72 | 32·2 | − 2·8 | 29 | − 2 |
| | Shields | 73 | 50 | 67·3 | 54·1 | 60·2 | + 2·2 | 127 | 0 | 4 | 0·13 | − 0·54 | * | * | * | * |
| | Scarborough Ⓜ | 76 | 50 | 69·9 | 53·1 | 60·9 | + 1·7 | 132 | 0 | 2 | 0·06 | − 0·66 | — | — | — | — |
| | Spurn Head | 73 | 54 | 67·9 | 56·4 | 61·8 | + 2·1 | 139 | 0 | 2 | 0·12 | − 0·34 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 77 | 47 | 72·4 | 53·2 | 62·1 | + 1·4 | 141 | 0 | 1 | 0·42 | − 0·35 | 50·6 | + 8·6 | 46 | + 8 |
| | Yarmouth | 76 | 51 | 69·6 | 55·0 | 61·8 | + 1·1 | 139 | 0 | 1 | 0·98 | + 0·50 | * | * | * | * |
| | Geldeston | 79 | 48 | 71·8 | 53·7 | 62·1 | + 1·5 | 141 | 0 | 2 | 1.27 | + 0·62 | 52·3 | + 7·2 | 48 | + 7 |
| | Cambridge | 80 | 48 | 74·3 | 53·2 | 63·0 | + 1·5 | 147 | 0 | 2 | 0·38 | − 0·24 | 55·8 | +13·3 | 51 | +13 |
| | Felixstowe | 79 | 51 | 72·3 | 55·4 | 63·3 | + 2·6 | 149 | 0 | 2 | 0·79 | ? | 57·8 | ? | 53 | ? |
| | Rothamsted | 77 | 48 | 71·6 | 53·6 | 62·0 | + 1·5 | 140 | 0 | 2 | 0·31 | − 0·36 | 59·2 | +14·2 | 54 | +12 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 75 | 47 | 70·7 | 53·4 | 61·5 | + 1·3 | 137 | 0 | 1 | 0·01 | − 0·64 | * | * | * | * |
| | Loughborough | 78 | 49 | 72·1 | 53·9 | 62·4 | + 1·0 | 143 | 0 | 1 | 0·14 | − 0·43 | * | * | * | * |
| | Stamford (Duddington) | 76 | 47 | 72·0 | 52·7 | 61·7 | + 0.3 | 138 | 0 | 1 | 0·20 | − 0·47 | * | * | * | * |
| | Cheadle Ⓜ | 72 | 47 | 67·3 | 51·4 | 58·8 | + 0·7 | 118 | 0 | 0 | — | − 0·76 | * | * | * | * |
| | Shirley (near Solihull) | 75 | 45 | 70·2 | 51·5 | 60·2 | 0·0 | 127 | 0 | 2 | 0·18 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 74 | 44 | 69·6 | 49·9 | 59·1 | + 0·9 | 120 | 0 | 1 | 0·01 | − 0·63 | 57·4 | +19·8 | 52 | +18 |
| | Hereford (Belmont) Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 80 | 46 | 72·7 | 52·1 | 61·7 | + 2·5 | 138 | 0 | 2 | 0·03 | − 0·75 | 61·4 | +20·4 | 56 | +19 |
| | Oxford | 80 | 50 | 73·9 | 55·3 | 64·0 | + 3·1 | 154 | 0 | 2 | 0·06 | − 0·58 | 65·3 | +23·3 | 60 | +21 |
| 5. ENGLAND, S. | London | 82 | 50 | 76·4 | 56·4 | 65·7 | + 3·4 | 166 | 0 | 1 | 0·03 | − 0·57 | 60·0† | +21·2† | 55† | +19† |
| | Cranley Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Dungeness | 73 | 51 | 70·6 | 57·1 | 63·4 | + 1·7 | 150 | 0 | 0 | — | − 0·50 | * | * | * | * |
| | Hastings (St. Leonards) | 74 | 54 | 71·7 | 57·8 | 64·3 | + 3·1 | 156 | 0 | 1 | 0·20 | − 0·43 | 64·9 | +15·4 | 60 | +15 |
| | Southampton | 85 | 51 | 79·4 | 57·2 | 67·5 | + 5·3 | 179 | 0 | 1 | 0·01 | − 0·69 | 68·0 | +22·0 | 63 | +20 |
| | Portland Bill | 69 | 53 | 68·0 | 55·6 | 61.4 | + 2·5 | 136 | 0 | 1 | 0·80 | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 75 | 52 | 72·2 | 56·0 | 63·5 | + 4·8 | 151 | 0 | 2 | 0·03 | − 1·69 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 70 | 51 | 63·7 | 54·0 | 58·5 | + 1·6 | 116 | 0 | 6 | 1·51 | + 0·24 | * | * | * | * |
| | Glasgow | 64 | 52 | 62·7 | 53·9 | 58·0 | + 0·8 | 112 | 0 | 4 | 0·64 | − 0·24 | 19·8 | − 10·0 | 18 | − 9 |
| | Glenlee Ⓢ | 66 | 48 | 64·1 | 53·0 | 58·2 | + 0·7 | 113 | 0 | 4 | 0·24 | − 0·84 | * | * | * | * |
| | Douglas (Isle of Man) | 70 | 47 | 65·9 | 52·2 | 58·6 | + 1·3 | 116 | 0 | 0 | — | − 0·80 | 52·8 | +10·3 | 48 | +10 |
| 7. ENGLAND, N.W. | Stonyhurst | 68 | 51 | 64·8 | 53·7 | 58·9 | + 0·4 | 118 | 0 | 3 | 0·20 | − 0·92 | 38·1 | + 2·1 | 34 | + 2 |
| | Blackpool Ⓜ | 69 | 55 | 66·9 | 56·1 | 61·1 | + 1.4 | 134 | 0 | 2 | 0·13 | − 0·69 | 34·1 | − 4·4 | 31 | − 3 |
| | Manchester (Prestwich) | 76 | 48 | 69·0 | 52·9 | 60·4 | + 1.2 | 129 | 0 | 1 | 0·01 | − 0·94 | 32·5 | ? | 29 | ? |
| | Liverpool Obsy. (Bidston) | 69 | 53 | 64·9 | 56·4 | 60·4 | + 0·6 | 129 | 0 | 3 | 0·07 | − 0·71 | 36·9 | ? | 34 | ? |
| | Llandudno Ⓜ | 69 | 54 | 65·9 | 55·6 | 60·4 | − 0·2 | 129 | 0 | 2 | 0·05 | − 0·62 | 34·0 | − 2·0 | 31 | − 2 |
| | Holyhead | 67 | 54 | 63·6 | 55·1 | 59·1 | − 0.1 | 120 | 0 | 1 | 0·01 | − 0·61 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 79 | 41 | 72·3 | 49·7 | 60·2 | + 1·1 | 127 | 0 | 3 | 0·17 | − 0·88 | * | * | * | * |
| | Pembroke | 68 | 54 | 63·7 | 56·6 | 59·9 | + 1·1 | 125 | 0 | 1 | 0·02 | − 0·66 | 64·6 | +21·6 | 59 | +20 |
| | Clifton | 78 | 53 | 72·9 | 57·4 | 64·6 | + 4.0 | 158 | 0 | 1 | 0·01 | − 0·87 | * | * | * | * |
| | Arlington (N. Devon) | 72 | 48 | 68·0 | 53·3 | 60·1 | + 1·6 | 127 | 0 | 2 | 0·20 | − 1·05 | * | * | * | * |
| | Cullompton Ⓜ | 80 | 44 | 74·9 | 53·8 | 63·6 | + 2·9 | 151 | 0 | 2 | 1·18 | − 0·52 | 71·1 | +32·7 | 66 | +30 |
| | Falmouth | 74 | 53 | 69·1 | 56·9 | 62·6 | + 2·1 | 144 | 0 | 0 | — | − 0·80 | 76 0 | +29·5 | 71 | +27 |
| | Plymouth | 74 | 53 | 71·4 | 56·4 | 63·4 | + 2·0 | 150 | 0 | 0 | — | − 0·77 | 72·4 | +29·6 | 68 | +28 |
| 9. IRELAND, N. | Malin Head | 67 | 54 | 61·1 | 55·1 | 57·9 | + 0·7 | 111 | 0 | 4 | 0·37 | ? | * | * | * | * |
| | Londonderry | 75 | 51 | 66·5 | 53·6 | 59·6 | + 1·5 | 123 | 0 | 3 | 0·32 | − 0·60 | * | * | * | * |
| | Edenfel (Omagh) | 68 | 49 | 64·0 | 52·6 | 57·9 | + 1·2 | 111 | 0 | 2 | 0·23 | − 0·67 | * | * | * | * |
| | Belmullet | 66 | 53 | 62·7 | 54·4 | 58·3 | + 0·4 | 114 | 0 | 5 | 0·38 | − 0·62 | * | * | * | * |
| | Markree Castle | 68 | 41 | 65·5 | 52·6 | 58·6 | + 1·5 | 116 | 0 | 4 | 0·17 | − 0·78 | 27·3 | + 0·3 | 25 | + 1 |
| | Armagh | 71 | 49 | 66·7 | 53·1 | 59·4 | + 1·8 | 122 | 0 | 1 | 0·05 | − 0·69 | 26·8 | − 2·2 | 24 | − 2 |
| | Donaghadee | 73 | 50 | 67·1 | 52·9 | 59·5 | + 2·0 | 123 | 0 | 1 | 0·05 | − 0·67 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 75 | 52 | 69·8 | 55·1 | 61·9 | + 2·2 | 139 | 0 | 1 | 0·04 | − 0·66 | 43·7 | + 8·7 | 40 | + 8 |
| | Parsonstown | 73 | 48 | 67·4 | 51·9 | 59·1 | + 0·7 | 120 | 0 | 1 | 0·01 | − 0·81 | 29·3 | − 1·4 | 27 | − 1 |
| | Kilkenny | 74 | 45 | 69·1 | 51·1 | 59·5 | + 0·9 | 123 | 0 | 1 | 0·12 | − 0·52 | * | * | * | * |
| | Roche's Point | 71 | 52 | 68·1 | 55·6 | 61·4 | + 1·7 | 136 | 0 | 0 | — | − 0·83 | * | * | * | * |
| | Valencia | 66 | 49 | 63·7 | 55·0 | 59·1 | + 0·4 | 120 | 0 | 3 | 0·11 | − 0·87 | 25·2 | − 8·1 | 23 | − 7 |
| | Killarney | 70 | 45 | 66·5 | 52·2 | 58·9 | + 0·5 | 118 | 0 | 1 | 0·02 | ? | * | * | * | * |
| | Foynes | 71 | 52 | 65·0 | 55·3 | 59·8 | + 2·1 | 125 | 0 | 1 | 0·10 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 69 | 56 | 67·9 | 58·6 | 62·9 | + 2·2 | 146 | 0 | 0 | — | − 0·65 | 69·1 | ? | 65 | ? |
| | Jersey | 75 | 54 | 71·4 | 59·3 | 64·9 | + 2·2 | 160 | 0 | 1 | 0·01 | − 0·64 | 65·0 | +13·1 | 61 | +12 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

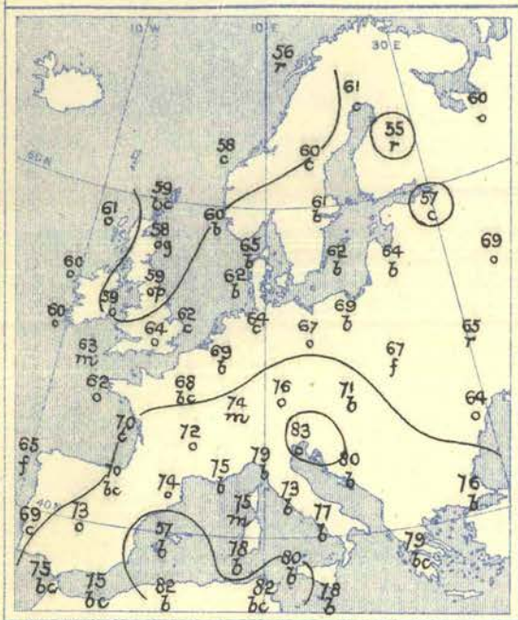
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 23rd July.

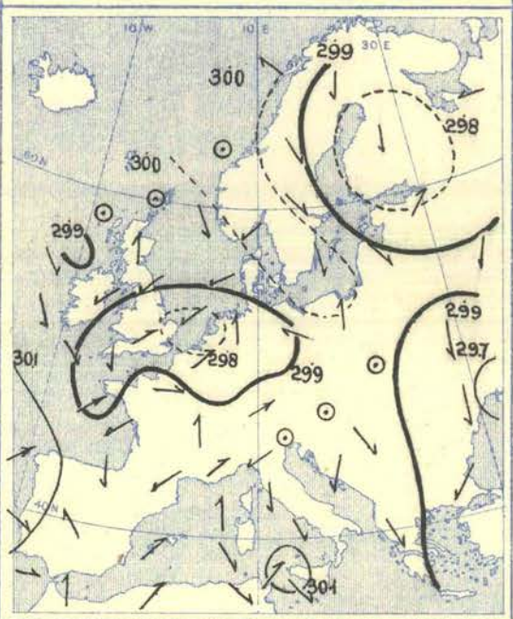
### Temperature and Weather. 8 a.m.



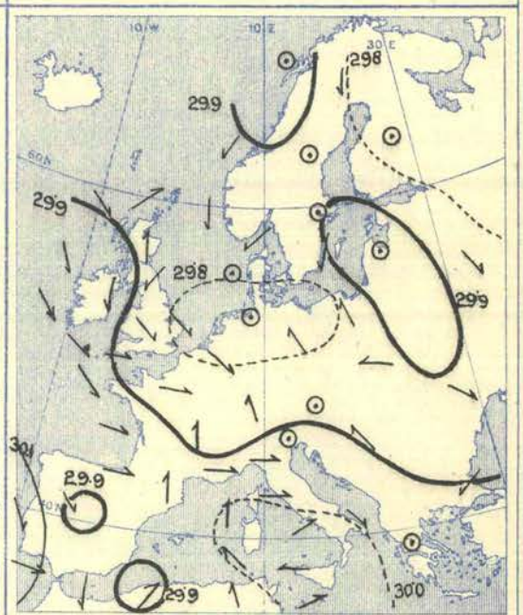
*Weather* in morning cloudy or dull over the United Kingdom generally, with rain or passing showers in several parts of England and Ireland, and a thunderstorm at Portland Bill. Fine in the north of Scotland, as well as over the greater part of the Continent, but cloudy at several of the Russian, German, Spanish, and central French stations, with rain at Kuopio and Kiev. Rain falling later in most of the western and central countries—heavily in places; thunderstorms occurring at several of the French and English Channel stations.

*Temperature* fallen in our Islands and France; changed rather irregularly elsewhere. Morning readings highest, 87° at Palma, 83° at Trieste, and 82° at Barcelona, Tunis and Aumale; above 70° over southern Europe generally, as well as in some parts of Germany and Austria. Lowest, 55° at Kuopio, 56° at Bodö, and 57° at St. Petersburg; lowest in our Islands, 58° at Aberdeen, Leith and Loughborough. Daily maxima over England much lower than of late; thermometer not exceeding 70° at any station. Rising to 85° and upwards in many parts of southern Europe, to 95° at Florence, and to 97° at Leghorn.

### Barometer and Wind. 8 a.m.



### 6 p.m.

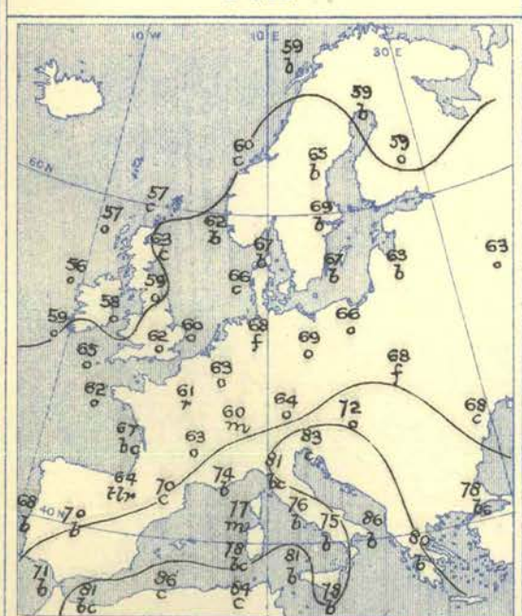


*Wind* Westerly (North-Easterly to North-Westerly) over Ireland and the greater part of England, but South-Westerly over our south-eastern counties and the north of France; South-Easterly over Denmark and north Germany; Southerly in the east of Scotland; North-Westerly over Sweden and Finland; Northerly over the south of Russia and also in Italy; variable in Austria. North-Easterly over the southern parts of France; North-Westerly over the western parts of the Spanish Peninsula. Subsequently shifting to the North-Westward over France and the south-east of England; no important change occurring elsewhere.

*Barometer* highest, 30·1 ins. and upwards in an anticyclone extending from the Atlantic over the western parts of the Spanish Peninsula. Lowest, 29·7 ins. and less in a shallow depression over the extreme south of Russia; 29·8 ins. and less in two other systems—one lying over Finland and the other over Holland and the east of England. Depressions over Finland and Holland subsequently moving eastwards—Atlantic anticyclone spreading slowly in a similar direction.

## Monday, 24th July.

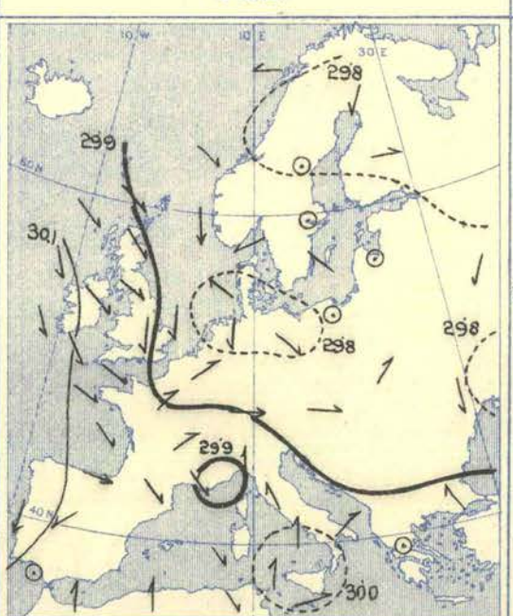
### Temperature and Weather. 8 a.m.



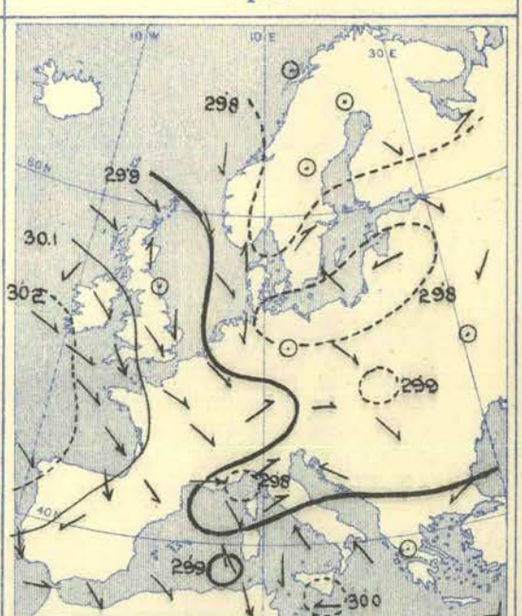
*Weather* in morning cloudy or dull over the United Kingdom generally, but fine at some of the northern and eastern stations. Fine over the northern and also over the southern parts of the Continent, but cloudy in most of the western and central countries, with rain at Paris and Breslau. Sky clearing later in the west and south of our Islands, but a little rain falling in the north, as well as in the west of Norway, and in several parts of France, Germany and Austria. Thunderstorms occurring at Cuxhaven and Lyons.

*Temperature* fallen in all the western parts of the United Kingdom, as well as in France and Germany; risen in most other localities. Morning readings highest, 86° at Brindisi and Algiers, 84° at La Calle, and 83° at Trieste; above 70° over southern and eastern Europe generally, and above 65° in most of the northern and central countries. Lowest, 56° at Belmullet and 57° at Sumburgh Head, Stornoway and Malin Head. Rising during day to 70° and upwards in many parts of Great Britain; exceeding 80° at some of the French stations, and exceeding 85° in many parts of southern Europe, the highest reading of all being 102° at Brindisi.

### Barometer and Wind. 8 a.m.



### 6 p.m.

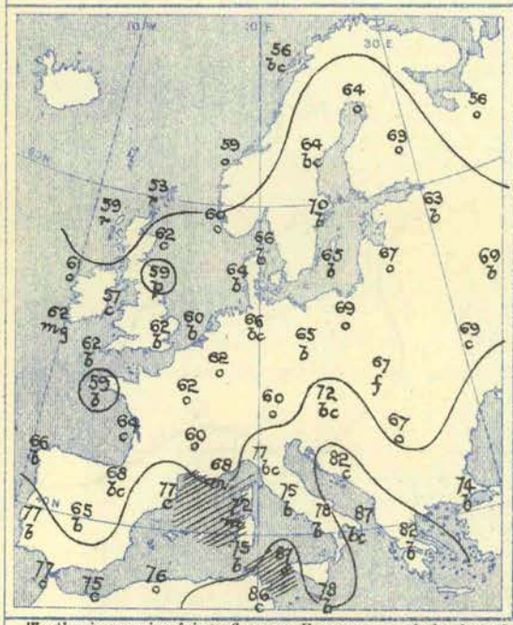


*Wind* light to moderate from the Northward or North-Westward over our Islands, the north and west of France and the Spanish Peninsula, as well as in the southern parts of Scandinavia. Light from between South and West over Germany, Austria, Italy and central France; calm in Sweden; light from the Northward at most of the Russian stations. Subsequently backing to the Westward on some parts of our own northern coasts; no important change occurring elsewhere.

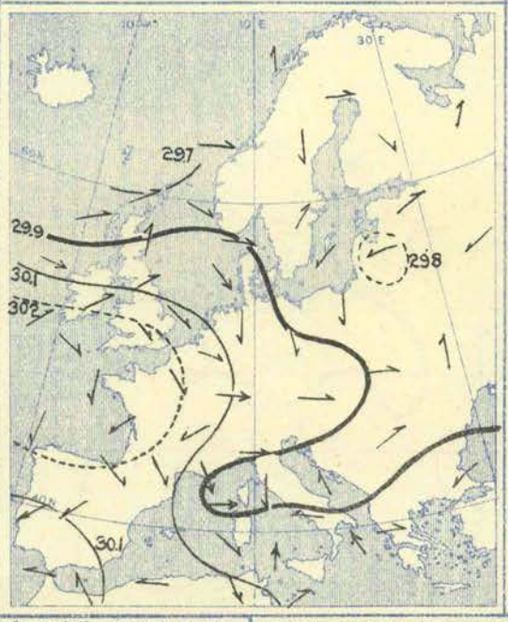
*Barometer* highest, 30·1 ins. and upwards in an anticyclone extending from the Atlantic over Ireland, and also over the western parts of the Spanish Peninsula; 30·0 ins. and upwards in another system over southern Italy. Lowest, 29·8 ins. and less in a shallow depression over Denmark, Holland and north Germany, and also in another shallow system over the south of Russia, 29·9 ins. and less in a third over the Gulf of Genoa. Atlantic anticyclone subsequently spreading eastwards over the southern parts of the United Kingdom; new but shallow depression appearing off the north of Scotland.

## Tuesday, 25th July.

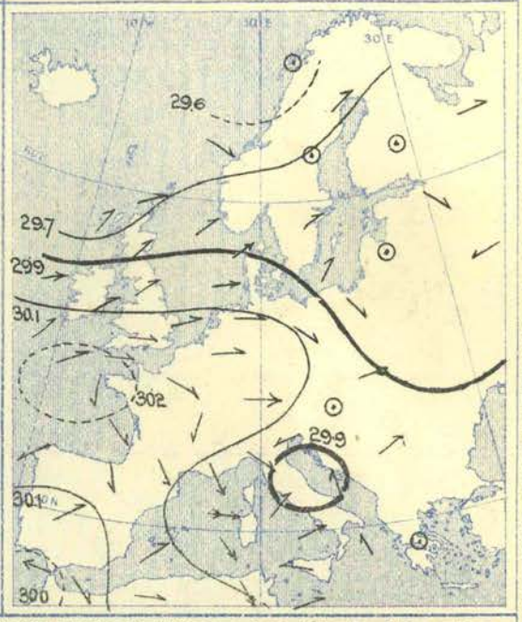
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair or fine over Europe as a whole, but cloudy or dull over Ireland, the northern parts of Great Britain and the west of Norway, with rain at several of the Scotch stations. Dull also in many parts of Belgium, Germany and central France, with fog at Le Mans and Belfort. A little rain falling later over Ireland and Scotland generally, as well as at some of the Scandinavian and Danish stations, and a considerable quantity at Munich, as well as at Pesaro. Thunder and lightning occurring at Stornoway in evening, and thunder at Lyons.

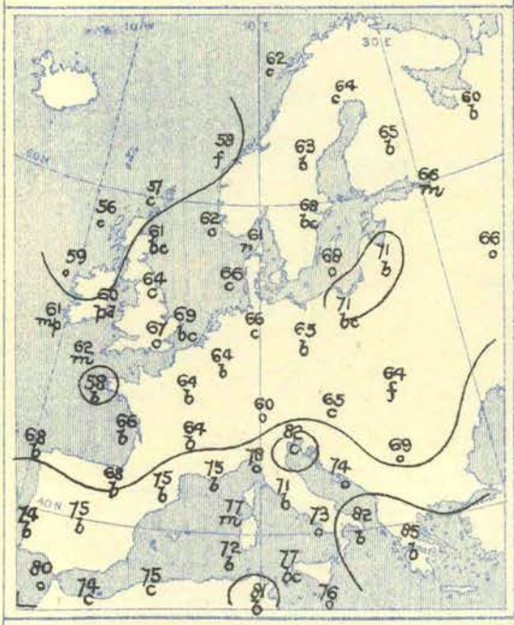
*Temperature* changed rather irregularly. Morning readings highest, 87° at Brindisi and Palermo, 86° at Sfax, and 82° at Lesina and Patras; above 70° over southern Europe generally, and just touching that point at Stockholm; above 60° in many parts of the United Kingdom. Lowest, (1) 53° at Sumburgh Head, and 56° at Bodö and Archangel; (2) 58° at Belfort and 59° at Le Mans. Rising during day to 75° and upwards in many parts of England, France and Germany; exceeding 80° over southern Europe generally, and exceeding 90° at some of the Spanish and Italian stations.

*Wind* moderate to fresh from the Westward or South-Westward over Ireland and the northern parts of Great Britain. Light from the North-Westward over the central and southern parts of England, as well as over the greater part of France, the Netherlands, Denmark, and Germany; Westerly or South-Westerly in Austria. Variable over Sweden and Russia; Westerly to Southerly in the west of Norway; North-Easterly to Easterly over the Spanish Peninsula; South-Easterly or Southerly over southern Italy. Subsequently increasing from the Westward or South-Westward on our extreme northern and north-western coasts, and blowing a gale at night in the north of Scotland.

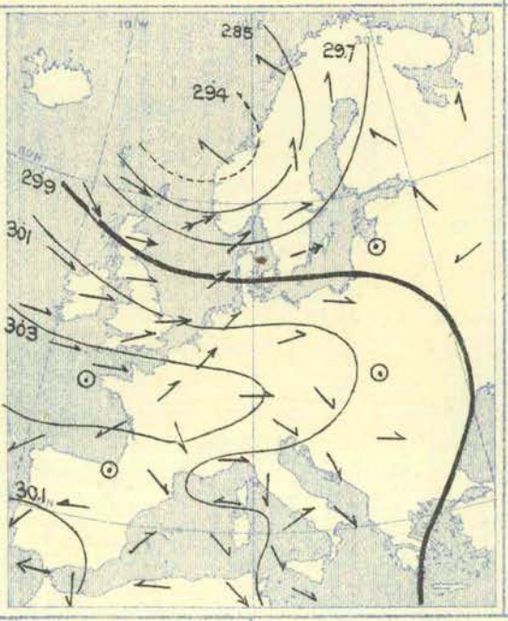
*Barometer* highest, 30·2 ins. and upwards in an anticyclone lying over the Bay of Biscay, the west and north of France and the southern parts of the United Kingdom. Lowest, 29·7 ins. and less in a depression off the north of Scotland; 29·8 ins. and less in a shallow system over the Baltic Provinces. Scotch depression subsequently moving away to the north-eastward, but larger and deeper disturbance moving rapidly eastwards along our extreme northern coasts at night.

## Wednesday, 26th July.

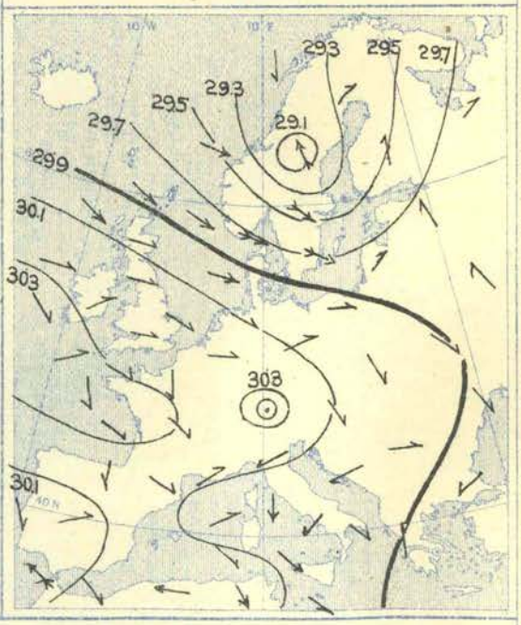
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair or fine over the greater part of Europe, but showery in Ireland and cloudy over Denmark and the south of Scandinavia, with rain at Fauder and the Scaw. Rain falling later in the north of Scotland and also in many parts of Scandinavia, Denmark and northern Russia, and slight showers at some of the English stations.

*Temperature* fallen in the extreme west and north of our Islands, and also in Scandinavia, Russia and Italy, risen in most other localities. Morning readings highest, 85° at Athens, 83° at Patras, and 82° at Brindisi, Trieste and Toulon; above 70° over southern Europe generally, as well as at some of the Baltic stations. Lowest, 51° at Sumburgh Head, 55° at Malin Head, and 56° at Stornoway and Wick. Daily maxima below 65° on several parts of our own western and extreme northern coasts, but thermometer reaching 76° at Yarmouth and 82° in London. Exceeding 80° also in several parts of France and Germany, exceeding 85° in Spain and Italy, and reaching 97° at Lisbon, and 101° at Madrid.

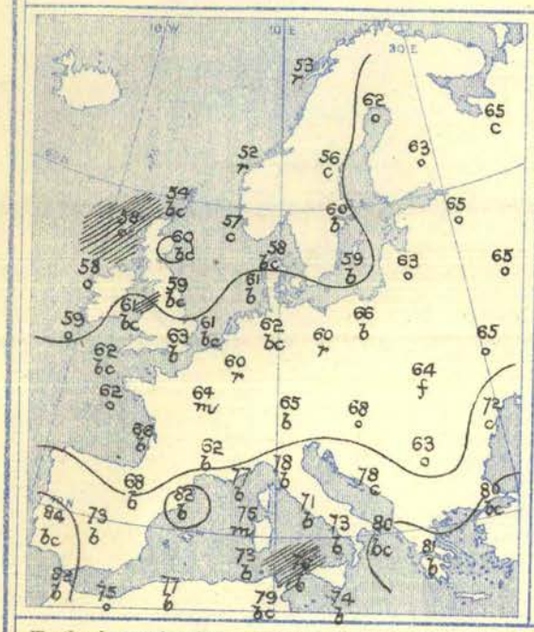
*Wind* moderate to fresh from the Westward over our Islands generally, but strong to a gale from the North-Westward in the north of Scotland; strong from the South-Westward on the eastern shores of the North Sea, with a gale at Skudesnaes; light from the Southward over the Gulf of Bothnia, and from the South-Eastward over Finland and the west of Norway. North-Westerly to Northerly over Austria, Italy and the Adriatic, but Southerly or South-Westerly in Greece. Easterly or North-Easterly over the Spanish Peninsula, and the west and south of France. Moderating later in the north of Scotland, but increasing to a gale from between West and South in Sweden, Finland and Denmark.

*Barometer* highest, 30·2 ins. to 30·3 ins. and more in an anticyclone extending from the Atlantic over the south of our Islands, France and south Germany. Lowest, 29·4 ins. and less in a large and rather deep depression with its centre near Christiansund. Depression subsequently moving eastwards and becoming deeper; barometer rising briskly on our northern coasts, but falling slightly at our southern and the French stations.

## Thursday, 27th July.

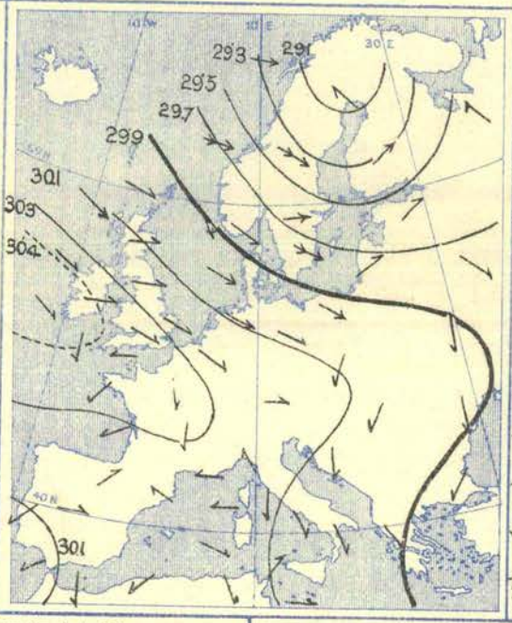
### Temperature and Weather.

8 a.m.

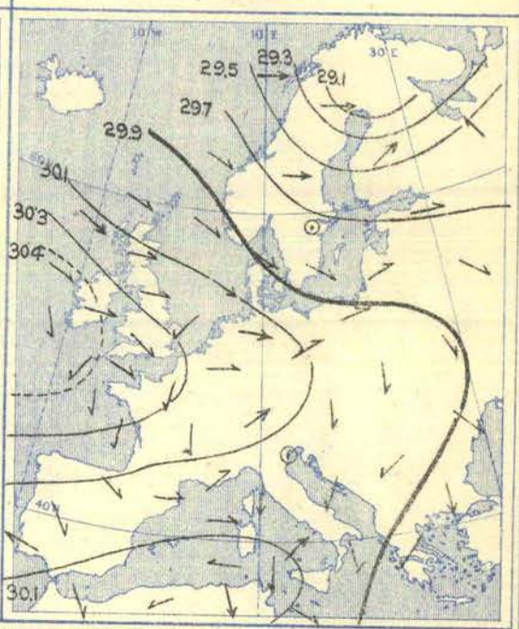


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over western and southern Europe generally, but dull on our own extreme west and north-west coasts, with showers at Malin Head. Fine in the south of Sweden, but cloudy or dull over the northern and central countries as a whole, with rain in the west of Norway, and also at Berlin and Brussels. Rain falling later in the north of Scotland, and also in many parts of Scandinavia, Russia and Austria; lightning seen at Perpignan in evening.

*Temperature* fallen in our Islands and the northern parts of the Continent, changed irregularly elsewhere. Morning readings highest, 84° at Lisbon, 82° at San Fernando and Barcelona, and 81° at Athens; above 70° over southern Europe generally. Lowest, 52° at Christiansund, 53° at Bodö, 54° at Sumburgh Head, and 56° at Hernösand and Parsonstown. Daily maxima below 65° on several parts of our own western and extreme northern coasts, but thermometer exceeding 70° in the south of England. Exceeding 85° in many parts of southern Europe, and reaching 99° at Cape Béarn and Madrid.

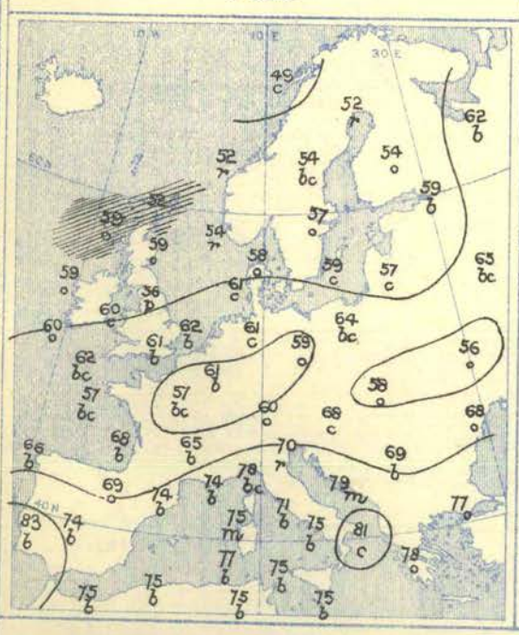
*Wind* light to fresh from the Westward or North-Westward in all the more northern parts of the United Kingdom, and also over the Netherlands and north Germany, strong to a gale from the same quarters over Scandinavia and Denmark; moderate to fresh from South-West in Finland. Light from the Northward over the southern parts of the United Kingdom and the north of France; South-Westerly in the extreme south of France; Easterly or North-Easterly over the Spanish Peninsula. Northerly (North-Easterly to North-Westerly) over Italy, Austria and the south of Russia. No important change occurring later, but gale in Scandinavia tending to subside.

*Barometer* highest, 30·4 ins. and upwards over the southern parts of Ireland; 30·1 ins. and upwards in an anticyclone covering the greater part of western, central and southern Europe. Lowest, 29·1 ins and less in a large and rather deep depression, with its centre near Haparanda, 29·8 ins. and less in a shallow system over Asia Minor. Depression in north subsequently moving slowly north-eastwards, but secondary disturbance beginning to approach the north of Scotland in evening.

## Friday, 28th July.

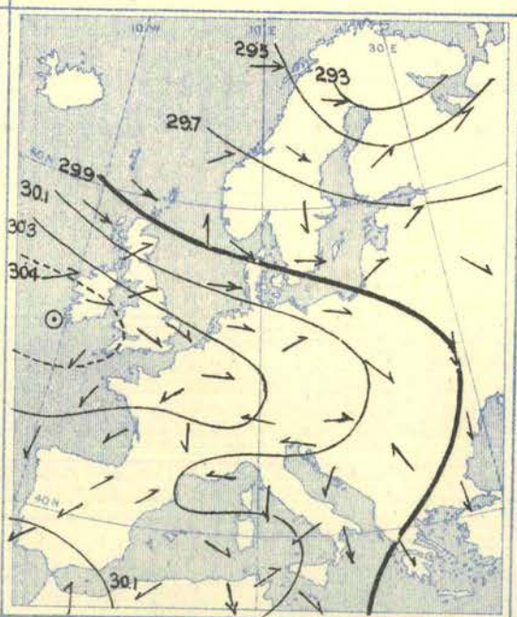
### Temperature and Weather.

8 a.m.

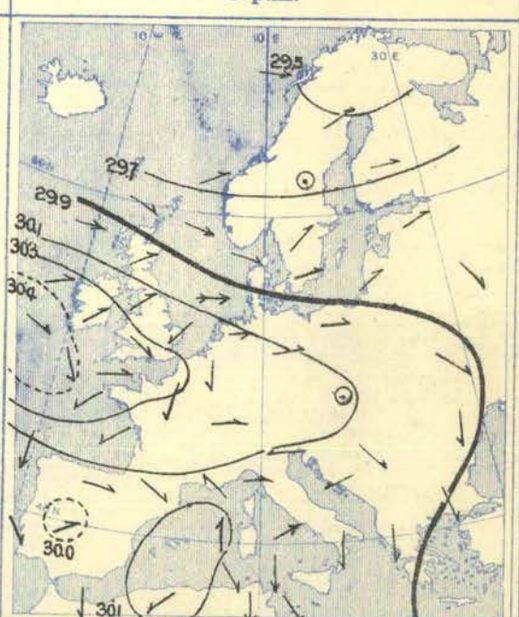


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over England and the central and southern parts of the Continent, but rain falling at Trieste; cloudy or dull over Ireland, Scotland and the greater part of northern Europe, with rain in the Shetlands and west of Norway, and also in Lapland. Showers falling during day at several of our own western and northern stations, and larger quantities of rain in Norway and Denmark.

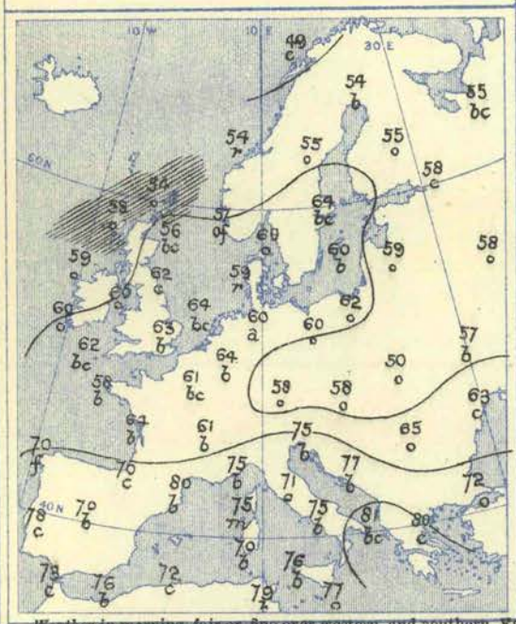
*Temperature* fallen over central Europe; changed irregularly elsewhere. Morning readings highest, 83° at San Fernando, 81° at Brindisi, and 79° at Lesina; above 70° in most parts of southern Europe. Lowest, 43° at Bodö and 52° at Haparanda, Christiansund and Sumburgh Head. Daily maxima below 65° at several of our own western and extreme northern stations, but thermometer rising to 70° and upwards over central and southern England, and to 77° in London. Exceeding 80° in the west of France, and exceeding 90° in many parts of southern Europe, the highest readings of all being 101° at Madrid and 97° at Lisbon.

*Wind* Westerly or North-Westerly in all the more northern parts of our Islands and also over the greater part of Scandinavia, Denmark and Germany; strong in force in the north of Scotland, and also in Denmark and the south of Sweden; South-Westerly over northern Russia and the west of Norway. Northerly on our own southern coasts; Easterly or North-Easterly over the Spanish Peninsula, south Germany and the greater part of France, but South-Westerly at Biarritz and Perpignan. Northerly (North-East to North-West) over Italy. Subsequently backing to the South-Westward at several of the English stations; no important change occurring elsewhere.

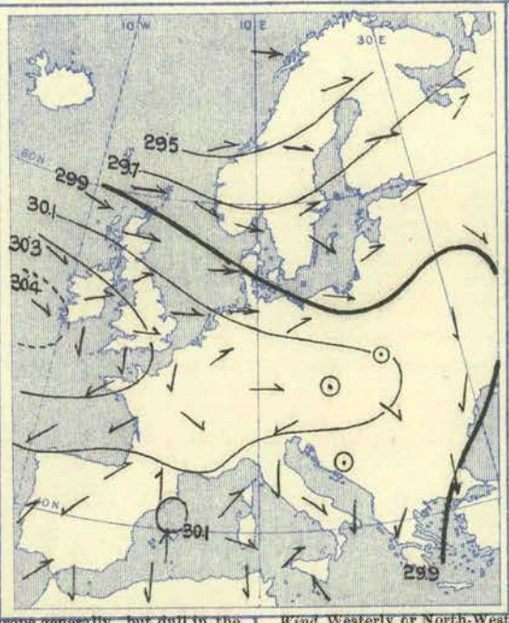
*Barometer* highest, 30·4 ins. and upwards over Ireland, Wales and the south-west of England; 30·2 ins. and upwards in an anticyclone extending from the Atlantic over the whole of Ireland, England, the Netherlands, Germany and the northern parts of France. Lowest, 29·3 ins. and less in a depression over Lapland. Small secondary disturbances skirting our extreme northern coasts during day, and barometer falling in most parts of western Europe.

## Saturday, 29th July.

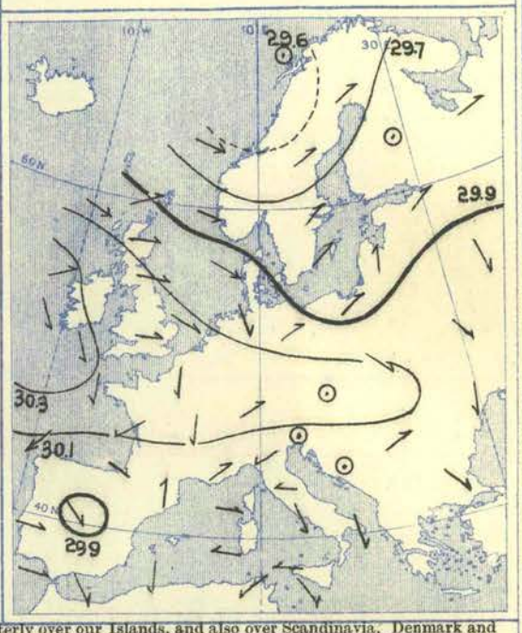
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning fair or fine over western and southern Europe generally, but dull in the north-western and extreme northern parts of Great Britain, with fog at Malin Head, Cloudy over the northern and central parts of the Continent, with rain at Christiansund, Fanö, Cuxhaven and Breslau. Slight rain falling later in the extreme north and north-west of our Islands and in Germany, and larger quantities in the west of Norway.

*Temperature* risen a little in most of the western countries, but fallen elsewhere. Morning readings highest, 81° at Brindisi, 80° at Athens, and 70° at Patras and Sfax; above 70° in most parts of southern Europe. Lowest, 49° at Bodö, 50° at Haparanda, Christiansund and Sumburgh Head, and 55° at Archangel, Uleaborg, Knopio, and Hernösand. Rising during day to between 70° and 75° in many parts of Great Britain, to 80° at Oxford and 82° London. Exceeding 80° also in the west of France, and reaching 90° or more in many parts of southern Europe, the highest reading of all being 102° at San Fernando.

*Wind* Westerly or North-Westerly over our Islands, and also over Scandinavia, Denmark and Germany; strong in force in the Hebrides and on the eastern shores of the North Sea; light from the Southward (South-East to South-West) over the Gulf of Finland. Northerly or North-Easterly over the greater part of France; variable over the Spanish Peninsula and northern Italy; Northerly or North-Westerly over southern Italy. No important change occurring during day.

*Barometer* highest 30·40 ins. at Valencia (Ireland); 30·1 ins. and upwards in an anticyclone, ex ending from the westward over the whole of Ireland, England, France, the Netherlands and all but the northern parts of Germany. Lowest, 29·6 ins. and less in a large shallow depression over the northern parts of Scandinavia; 29·9 ins. and less in another shallow area over Asia Minor. Anticyclone spreading slowly northwards during day, but new depression advancing towards the Norwegian coast at night.

### GENERAL NOTES.

Shortly after the commencement of this week, the complex area of low pressure which had previously extended over England from the southward, moved away to Germany and gradually dispersed, while an anticyclone spread from the Atlantic over France and the southern parts of the United Kingdom. For a time the weather over England was in a very changeable condition, with thunderstorms and heavy rain at several of the eastern and southern stations on the 23rd. Later on, however, it improved materially, and for the greater part of the week was fair and dry, with temperature above the average for the time of year.

In Ireland and Scotland, and also over the northern parts of the Continent, the weather was affected by some large depressions, which moved eastwards from the Atlantic over Scandinavia, the most important of these skirting our extreme northern coasts on Tuesday night, and occasioning Westerly to North-Westerly gales and rain, at first in the north of Scotland, and afterwards in many parts of northern Europe. At the close of the week, the anticyclone over our southern and south-western districts was spreading northwards and north-eastwards, and the depressions in the north were beginning to move in a track lying still further to the northward. Fair, dry weather was therefore spreading to all but the extreme northern parts of the United Kingdom, and temperature was inclined to rise both in Ireland and Scotland.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 176.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 29·0 | ? | 25 | ? | WATERGATE (Emsworth) | 63·0 | ? | 58 | ? |
| STRATHPEFFER SPA | | | | | BRIGHTON | 67·6 | +19·1 | 63 | +18 |
| EDINBURGH | 33·4 | + 2·1 | 30 | + 2 | WORTHING | 63·7 | ? | 59 | ? |
| MORPETH | 34·2 | ? | 31 | ? | BOGNOR | 66·0* | ? | 61* | ? |
| NEWCASTLE-ON-TYNE | 27·1 | ? | 24 | ? | EASTBOURNE | 63·1 | +14·1 | 58 | +13 |
| OSWALDKIRK (Yorkshire) | | | | | VENTNOR HOSPITAL | 62·4 | ? | 58 | ? |
| LOWESTOFT | 52·6 | ? | 48 | ? | SOUTHPORT | 40·2 | ? | 36 | ? |
| HOLLESLEY BAY | 57·1 | ? | 52 | ? | COLWYN BAY | 40·4 | ? | 37 | ? |
| SHEFFIELD | 35·0 | ? | 32 | ? | ABERDOVEY | 50·8* | ? | 46* | ? |
| WORKSOP | 27·5 | - 8·0 | 25 | - 7 | TENBY | 67·3 | +24·4 | 62 | +22 |
| THURCASTON (Leicestershire) | 47·9 | +10·2 | 43 | +10 | NEWQUAY | 67·7 | +21·9 | 63 | +20 |
| MARGATE | 58·1 | +14·9 | 54 | +14 | TORQUAY | 82·1 | +36·3 | 77 | +35 |
| WESTBOURNE (Emsworth) | 67·1* | +19·9 | 62* | +18 | GUERNSEY | 68·9* | +15·7 | 65* | +15 |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| DATE OF REPORT. | NAME OF STATIONS. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week ending May 27th, 1899 | Cambridge | — | — | — | — | — | — | — | — | — | — | — | 35·3 | - 16·2 | 32 | - 9 |
| ,, ,, ,, ,, ,, | Tenby | — | — | — | — | — | — | — | — | — | — | — | 35·6 | - 14·2 | 32 | - 13 |
| ,, ,, ,, ,, ,, | Newquay | — | — | — | — | — | — | — | — | — | — | — | 42·0 | - 6·5 | 39 | - 7 |
| ,, ,, June 3rd ,, | Cambridge | — | — | — | — | — | — | — | — | — | — | — | 94·8 | +48·6 | 84 | +43 |
| ,, ,, ,, ,, ,, | Oswaldkirk | — | — | — | — | — | — | — | — | — | — | — | 62·3 | +22·4 | 54 | +20 |
| ,, ,, ,, ,, ,, | Colwyn Bay | — | — | — | — | — | — | — | — | — | — | — | 92·1 | ? | 81 | ? |

WYMAN & SONS, LTD. LITH. 63 CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 31. | *Third Series.* WEEK ENDING SATURDAY, AUGUST 5TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 182.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 81 | 43 | 68·2 | 53·0 | 59·2 | 5 above | 120 | +34 | 0 | 0 | 1288 | +214 | 617 | − 6 |
| | 1. SCOTLAND, EAST | 82 | 43 | 70·7 | 53·5 | 61·6 | 5 above | 137 | +34 | 0 | 0 | 1474 | +142 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 87 | 52 | 70·9 | 56·1 | 63·1 | 5 above | 148 | +33 | 0 | 0 | 1669 | +279 | 456 | − 93 |
| | 3. ENGLAND, EAST | 85 | 47 | 74·6 | 54·7 | 64·1 | 3 above | 155 | +28 | 0 | 0 | 1931 | +282 | 421 | −196 |
| | 4. MIDLAND COUNTIES | 89 | 48 | 79·8 | 54·3 | 66·3 | 6 above | 170 | +49 | 0 | 0 | 1957 | +288 | 478 | −141 |
| | 5. ENGLAND SOUTH | 88 | 52 | 78·6 | 58·9 | 68·2 | 7 above | 183 | +50 | 0 | 0 | 2169* | +384 | 294 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 80 | 47 | 71·1 | 53·9 | 62·0 | 5 above | 140 | +34 | 0 | 0 | 1572 | +166 | 413 | − 49 |
| | 7. ENGLAND, N.W. | 85 | 52 | 71·6 | 56·3 | 63·5 | 4 above | 151 | +35 | 0 | 0 | 1795 | +289 | 313 | −146 |
| | 8. ENGLAND, S.W. | 88 | 49 | 77·4 | 58·3 | 67·3 | 7 above | 177 | +56 | 0 | 0 | 2072* | +377 | 240 | −121 |
| | 9. IRELAND, NORTH | 86 | 50 | 71·0 | 55·9 | 63·0 | 5 above | 147 | +41 | 0 | 0 | 1697* | +193 | 323 | − 72 |
| | 10. IRELAND, SOUTH | 83 | 48 | 74·5 | 56·8 | 65·1 | 6 above | 162 | +47 | 0 | 0 | 2028 | +312 | 245 | − 54 |
| | —CHANNEL ISLANDS | 85 | 58 | 75·7 | 63·0 | 69·0 | 7 above | 189 | +56 | 0 | 0 | 2433 | +538 | 81 | − 67 |

### Rainfall.

| | DISTRICTS. (See p. 182.) | For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 1 | less than ½ | 9 less | 128 | −11 | 25·6 | − 0·6 |
| | 1. SCOTLAND, EAST | 0 | — | 8 less | 119 | + 6 | 19·5 | + 2·4 |
| | 2. ENGLAND, N.E. | 1 | less than ½ | 7 less | 109 | + 3 | 14·1 | 0·0 |
| | 3. ENGLAND, EAST | 1 | less than ½ | 7 less | 95 | − 8 | 12·2 | − 1·9 |
| | 4. MIDLAND COUNTIES | 1 | less than ½ | 5 less | 94 | − 7 | 14·4 | − 0·9 |
| | 5. ENGLAND, SOUTH | 1 | 2 | 4 less | 82 | −15 | 12·5 | − 2·8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 1 | less than ½ | 10 less | 125 | + 6 | 28·5 | + 2·0 |
| | 7. ENGLAND, N.W. | 2 | 3 | 6 less | 112 | + 3 | 20·1 | + 2·3 |
| | 8. ENGLAND, S.W. | 2 | 3 | 6 less | 103 | − 7 | 22·2 | + 1·6 |
| | 9. IRELAND, NORTH | 2 | 4 | 5 less | 132 | + 4 | 21·1 | + 0·9 |
| | 10. IRELAND, SOUTH | 2 | 7 | 1 less | 113 | − 4 | 24·7 | + 3·2 |
| | — CHANNEL ISLANDS | 1 | less than ½ | 6 less | 99 | −17 | 15·8 | − 1·2 |

### Bright Sunshine.

| | DISTRICTS. (See p. 182.) | For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 52 | +35 | 46 | +31 | 835* | + 43 | 28 | + 2 |
| | 1. SCOTLAND, EAST | 45 | +13 | 41 | +12 | 901 | + 30 | 31 | + 1 |
| | 2. ENGLAND, N.E. | 47 | +13 | 43 | +14 | 886* | + 41 | 32 | + 2 |
| | 3. ENGLAND, EAST | 80 | +36 | 75 | +34 | 1233 | +179 | 42 | + 5 |
| | 4. MIDLAND COUNTIES | 65 | +30 | 61 | +28 | 1087 | +209 | 40 | + 8 |
| | 5. ENGLAND, SOUTH | 77 | +32 | 73 | +31 | 1308 | +242 | 46 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 53 | +18 | 48 | +16 | 927 | + 4 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 62 | +26 | 57 | +25 | 1067 | +144 | 38 | + 5 |
| | 8. ENGLAND, S.W. | 68 | +25 | 64 | +23 | 1254 | +150 | 45 | + 6 |
| | 9. IRELAND, NORTH | 46 | +18 | 42 | +16 | 915 | + 55 | 32 | + 2 |
| | 10. IRELAND, SOUTH | 57 | +25 | 53 | +23 | 1040 | + 73 | 37 | + 3 |
| | — CHANNEL ISLANDS | 72 | +22 | 69 | +21 | 1389 | +200 | 52 | + 7 |

*Bright Sunshine*.—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was generally fine and dry, but towards the close of the period thunderstorms were experienced in most of the southern and western districts, the accompanying rain being very heavy in some places, slight in others.

*Temperature* was again considerably above the mean, the excess ranging from 3° in England E. to as much as 6° in the Midland Counties and Ireland S., and to 7° in England S. and S.W. and the Channel Islands. The highest of the maxima occurred during the earlier half of the period, when they varied from 89° in the Midland Counties, 88° in England S. and S.W., and 87° in England N.E., to 81° in Scotland N., and 80° in Scotland W. The lowest of the minima were registered about the middle of the week at most of the English and Irish stations, but towards its end in Scotland; they ranged from 43° in Scotland N. and E., and 47° in England E. and Scotland W., to 52° in England N.E., N.W. and S., and to 58° in the Channel Islands.

*Rainfall* was only slightly less than the mean in Ireland S., but was much less elsewhere. In all the more northern and eastern districts the fall was scarcely appreciable. The amounts towards the end of the week varied greatly in different localities, the largest, occurring at Dublin during Saturday night, being 2·23 ins.

*Bright Sunshine* was very abundant, the percentage of the possible amount of duration varying from 75 in England E., 73 in England S., 69 in the Channel Islands, and 64 in England S.W., to 42 in Ireland N., and 41 in Scotland E.

*Barometer and Wind.*—During the earlier part of this period an anticyclone moved slowly eastwards over our Islands to the North Sea and Germany, causing light North-Easterly and Easterly winds in our southern districts, mainly North-Westerly to Westerly winds in the north, and variable airs in the intervening regions. By Thursday a new anticyclone had been formed over Scotland, and shallow depressions began to approach our south-western and southern coasts from the Bay of Biscay and France. The former system remained almost stationary, but the depressions gradually moved rather more over us, causing thunderstorms in many places, preceded by a brisk Easterly wind on our southern and south-eastern coasts.

207 | 90 Wy. & S., Ltd.
213 | 70 8 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 181 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 61 | 48 | 58·3 | 49·9 | 53·9 | + 0·5 | 83 | 0 | 1 | 0·01 | − 0·67 | * | * | * | * |
| | Stornoway | 71 | 45 | 66·7 | 50·4 | 58·1 | + 3·4 | 113 | 0 | 1 | 0·11 | − 0·66 | 58·9 | +30·9 | 52 | +27 |
| | Wick | 80 | 43 | 70·1 | 51·3 | 60·1 | + 5·0 | 127 | 0 | 1 | 0·03 | − 0·59 | * | * | * | * |
| | Lairg § | 81 | 54 | 74·5 | 57·3 | 65·4 | +11·2 | 164 | 0 | 1 | 0·01 | − 0·74 | * | * | * | * |
| | Glencarron § | 73 | 50 | 67·8 | 53·4 | 60·2 | + 5·7 | 127 | 0 | 0 | — | − 1·51 | * | * | * | * |
| | Fort Augustus § | 75 | 47 | 69·7 | 53·8 | 61·3 | + 4·8 | 135 | 0 | 0 | — | − 0·79 | 62·6 | +45·9 | 56 | +41 |
| | Fort William § | 74 | 53 | 70·6 | 54·7 | 62·2 | + 5·3 | 141 | 0 | 0 | — | − 1·33 | 68·3 | +45·6 | 61 | +40 |
| 1. SCOTLAND E. | Nairn | 78 | 45 | 69·9 | 53·7 | 61·3 | + 3·8 | 135 | 0 | 0 | — | − 0·72 | * | * | * | * |
| | Aberdeen | 81 | 49 | 68·4 | 53·6 | 60.6 | + 3·6 | 130 | 0 | 0 | — | − 0·80 | 37·0 | + 2·9 | 33 | + 3 |
| | Braemar § | 76 | 43 | 68·8 | 48·6 | 58·0 | + 3·7 | 112 | 0 | 1 | 0·03 | − 0·71 | 43·2† | +15·5† | 39† | +14† |
| | Ochtertyre § | 82 | 47 | 72·3 | 53·0 | 62·1 | + 4·1 | 141 | 0 | 0 | — | − 0·90 | * | * | * | * |
| | Leith | 82 | 55 | 72·9 | 56·7 | 64·3 | + 5·4 | 156 | 0 | 0 | — | − 0·70 | * | * | * | * |
| | Marchmont § | 81 | 53 | 72·0 | 55·3 | 63·2 | + 6·7 | 148 | 0 | 1 | 0·01 | − 0·87 | 52·3 | +18.0 | 48 | +16 |
| 2. ENGLAND, N.E. | Alnwick Castle | 83 | 52 | 71·5 | 55·0 | 62·8 | + 5·7 | 146 | 0 | 1 | 0·03 | − 0·72 | * | * | * | * |
| | Durham | 87 | 53 | 74·0 | 54·6 | 63·7 | + 5·0 | 152 | 0 | 2 | 0·05 | − 0·73 | 49·0 | +14·8 | 45 | +14 |
| | Shields | 81 | 56 | 69·3 | 56·7 | 62·6 | + 4·6 | 144 | 0 | 1 | 0·02 | − 0·66 | * | * | * | * |
| | Scarborough ℳ | 86 | 55 | 70.8 | 56·7 | 63·3 | + 4·2 | 149 | 0 | 0 | — | − 0·72 | ? | ? | ? | ? |
| | Spurn Head | 81 | 55 | 68·9 | 57·6 | 62·9 | + 3·2 | 146 | 0 | 1 | 0·01 | − 0·46 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 84 | 48 | 78·0 | 52·8 | 64·6 | + 4·0 | 158 | 0 | 1 | 0·04 | − 0·71 | 80·6 | +39·1 | 75 | +37 |
| | Yarmouth | 70 | 55 | 67·4 | 58·1 | 62·5 | + 1·8 | 144 | 0 | 0 | — | − 0·65 | * | * | * | * |
| | Geldeston | 78 | 48 | 70·9 | 53·6 | 61·7 | + 1·1 | 138 | 0 | 0 | — | − 0·60 | 75·9 | +31·2 | 72 | +30 |
| | Cambridge | 85 | 50 | 82·2 | 53·1 | 66·8 | + 5·3 | 174 | 0 | 2 | 0·02 | − 0·60 | 78·9 | +36·8 | 74 | +36 |
| | Felixstowe | 75 | 53 | 70·7 | 57·0 | 63·4 | + 2·8 | 150 | 0 | 0 | — | ? | 87·3† | ? | 82† | ? |
| | Rothamsted | 81 | 47 | 78·6 | 53·6 | 65·4 | + 4·9 | 164 | 0 | 2 | 0·02 | − 0·64 | 79·0 | +34·3 | 74 | +32 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 89 | 48 | 79·0 | 53·1 | 65·3 | + 5·1 | 163 | 0 | 1 | 0·14 | − 0·50 | * | * | * | * |
| | Loughborough | 88 | 51 | 80·0 | 55·3 | 66·9 | + 5·5 | 174 | 0 | 1 | 0·02 | − 0·55 | * | * | * | * |
| | Stamford (Duddington) | 86 | 50 | 80·4 | 53·6 | 66·2 | + 4·8 | 169 | 0 | 2 | 0·02 | − 0·63 | * | * | * | * |
| | Cheadle ℳ | 81 | 52 | 75·2 | 55·5 | 74·8 | + 6·7 | 160 | 0 | 0 | — | − 0·78 | * | * | * | * |
| | Shirley (near Solihull) | 83 | 50 | 79·3 | 53.0 | 65·4 | + 5·1 | 164 | 0 | 0 | — | ? | * | * | * | * |
| | Churchstoke ℳ | 84 | 51 | 79·0 | 54·3 | 65·9 | + 7·7 | 167 | 0 | 0 | — | − 0·65 | 58·5 | +21·5 | 55 | +21 |
| | Hereford (Belmont) ℳ | 84 | 50 | 81·5 | 53·4 | 66·9 | + 6·7 | 174 | 0 | 1 | 0·02 | − 0·56 | * | * | * | * |
| | Cirencester | 84 | 49 | 82·0 | 54·4 | 67·4 | + 8·5 | 178 | 0 | 2 | 0·04 | − 0·74 | 66·9 | +26·0 | 63 | +25 |
| | Oxford | 84 | 51 | 82·1 | 55·7 | 68·1 | + 7·2 | 183 | 0 | 0 | — | − 0·62 | 75·5 | +33·5 | 71 | +31 |
| 5. ENGLAND, S. | London | 84 | 54 | 82·0 | 59·0 | 69·8 | + 7·5 | 195 | 0 | 1 | 0·05 | − 0·55 | 72·6† | +33·8† | 68† | +32† |
| | Cranley ℳ | 84 | 52 | 82·0 | 56·5 | 68·5 | + 6·4 | 186 | 0 | 0 | — | ? | * | * | * | * |
| | Dungeness | 79 | 57 | 72·9 | 62·3 | 67·3 | + 5·6 | 177 | 0 | 1 | 0·39 | − 0·11 | * | * | * | * |
| | Hastings (St. Leonards) | 83 | 57 | 77·9 | 59·8 | 68·3 | + 6·9 | 184 | 0 | 1 | 0·18 | − 0·47 | 84·1 | +35·3 | 79 | +33 |
| | Southampton | 88 | 56 | 83·9 | 59·4 | 70·9 | + 8·7 | 202 | 0 | 2 | 0·03 | − 0·67 | 72·7 | +26·7 | 69 | +26 |
| | Portland Bill | 74 | 56 | 71·6 | 57·4 | 64·1 | + 4·0 | 155 | 0 | 3 | 0·77 | ? | * | * | * | * |
| | Shaftesbury ℳ | 83 | 56 | 80·2 | 58·0 | 68·4 | + 9·4 | 185 | 0 | 1 | 0·15 | − 0·55 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 73 | 53 | 69·4 | 55·0 | 61·8 | + 5·0 | 139 | 0 | 1 | 0·03 | − 1·24 | * | * | * | * |
| | Glasgow | 77 | 51 | 70·6 | 54·2 | 61·9 | + 4·9 | 139 | 0 | 0 | — | − 0·90 | 56·5 | +26·7 | 51 | +24 |
| | Glenlee § | 80 | 49 | 74·5 | 51·7 | 62·4 | + 5·1 | 143 | 0 | 1 | 0·02 | − 1·09 | * | * | * | * |
| | Douglas (Isle of Man) | 76 | 47 | 70·0 | 54·5 | 61·8 | + 4·6 | 139 | 0 | 1 | 0·11 | − 0·73 | 48·5 | + 7·8 | 44 | + 7 |
| 7. ENGLAND, N.W. | Stonyhurst | 82 | 54 | 73·0 | 56·1 | 64·0 | + 5·6 | 154 | 0 | 2 | 0·42 | − 0·75 | 74·0 | +39·8 | 68 | +37 |
| | Blackpool ℳ | 75 | 52 | 70·3 | 52·9 | 61·1 | + 1·4 | 134 | 0 | 2 | 0·37 | − 0·48 | 53·2 | +16·4 | 49 | +15 |
| | Manchester (Prestwich) | 85 | 54 | 75·0 | 55·5 | 64·7 | + 5·6 | 159 | 0 | 2 | 0·14 | − 0·81 | 61·2 | ? | 56 | ? |
| | Liverpool Obsy. (Bidston) | 74 | 53 | 71·3 | 57·7 | 64·1 | + 4·3 | 155 | 0 | 2 | 0·20 | − 0·58 | 53·9 | ? | 50 | ? |
| | Llandudno ℳ | 74 | 56 | 71·6 | 57·9 | 64·3 | + 3·6 | 156 | 0 | 2 | 0·49 | − 0·18 | 56·5 | +21·5 | 53 | +20 |
| | Holyhead | 73 | 55 | 68·6 | 57·4 | 62·7 | + 3·5 | 145 | 0 | 1 | 0·03 | − 0·62 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 88 | 49 | 84·6 | 54·9 | 68·9 | + 9·7 | 188 | 0 | 1 | 0·09 | − 0·99 | * | * | * | * |
| | Pembroke | 78 | 57 | 73·4 | 59·7 | 66·1 | + 7·2 | 169 | 0 | 2 | 0·27 | − 0·43 | 63·4 | +21·5 | 60 | +20 |
| | Clifton | | | | | | | | | | | | * | * | * | * |
| | Arlington (N. Devon) | 82 | 52 | 78·1 | 56·9 | 66·9 | + 8·4 | 174 | 0 | 3 | 0·31 | − 0·97 | * | * | * | * |
| | Cullompton ℳ | 84 | 51 | 81·3 | 55·5 | 67·6 | + 7·1 | 179 | 0 | 2 | 1·13 | + 0·43 | 64·5 | +26·1 | 61 | +25 |
| | Falmouth | 74 | 59 | 71·6 | 61·6 | 66·3 | + 5·6 | 170 | 0 | 2 | 0·16 | − 0·66 | 67·7 | +22·1 | 64 | +21 |
| | Plymouth | 77 | 57 | 75·4 | 61·0 | 67·8 | + 6·3 | 181 | 0 | 2 | 0·06 | − 0·72 | 75·3 | +33·1 | 72 | +32 |
| 9. IRELAND, N. | Malin Head | 67 | 55 | 63·7 | 56·9 | 60·1 | + 2·7 | 127 | 0 | 1 | 0·06 | ? | * | * | * | * |
| | Londonderry | 86 | 53 | 77·3 | 56·3 | 66·2 | + 8·1 | 169 | 0 | 1 | 0·17 | − 0·78 | * | * | * | * |
| | Edenfel (Omagh) | 80 | 50 | 74·6 | 54·7 | 64·1 | + 7·4 | 155 | 0 | 0 | — | − 0·93 | * | * | * | * |
| | Belmullet | 73 | 52 | 68·0 | 57·0 | 62·2 | + 4·1 | 141 | 0 | 3 | 0·79 | − 0·29 | * | * | * | * |
| | Markree Castle | 80 | 51 | 73·6 | 56·0 | 64·3 | + 7·0 | 156 | 0 | 3 | 0·86 | − 0·11 | 44·2 | +18·2 | 41 | +16 |
| | Armagh | 82 | 53 | 73·0 | 55·8 | 63·9 | + 6·2 | 153 | 0 | 2 | 0·59 | − 0·16 | 46·7 | +19·5 | 43 | +18 |
| | Donaghadee | 78 | 52 | 66·6 | 54·6 | 60·2 | + 2·7 | 127 | 0 | 1 | 0·09 | − 0·66 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 75 | 55 | 70·4 | 58·9 | 64·3 | + 5·7 | 156 | 0 | 2 | 2·53 | + 1·79 | 55·8 | +21·0 | 52 | +20 |
| | Parsonstown | 83 | 52 | 76·6 | 57·0 | 66·2 | + 7·9 | 169 | 0 | 2 | 1·14 | + 0·26 | 46·8 | +18·5 | 44 | +17 |
| | Kilkenny | 81 | 51 | 76·4 | 55·4 | 65·3 | + 6·5 | 163 | 0 | 3 | 0·29 | − 0·39 | * | * | * | * |
| | Roche's Point | 72 | 55 | 69·6 | 58·4 | 63·7 | + 4·0 | 152 | 0 | 2 | 0·25 | − 0·63 | * | * | * | * |
| | Valencia | 81 | 53 | 75·3 | 55·9 | 65·0 | + 6·1 | 161 | 0 | 2 | 0·57 | − 0·43 | 67·6 | +34·9 | 64 | +33 |
| | Killarney | 82 | 51 | 76·9 | 55·0 | 65·3 | + 6·6 | 163 | 0 | 0 | — | ? | * | * | * | * |
| | Foynes | 82 | 48 | 76·4 | 56·7 | 66·0 | + 7·9 | 168 | 0 | 2 | 0·13 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 72 | 58 | 71·4 | 63·0 | 67·0 | + 6·3 | 175 | 0 | 0 | — | − 0·65 | 67·2 | ? | 64 | ? |
| | Jersey | 85 | 61 | 79·9 | 63·0 | 70·9 | + 8·2 | 202 | 0 | 2 | 0·02 | − 0·63 | 69·5 | +16·9 | 67 | +16 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

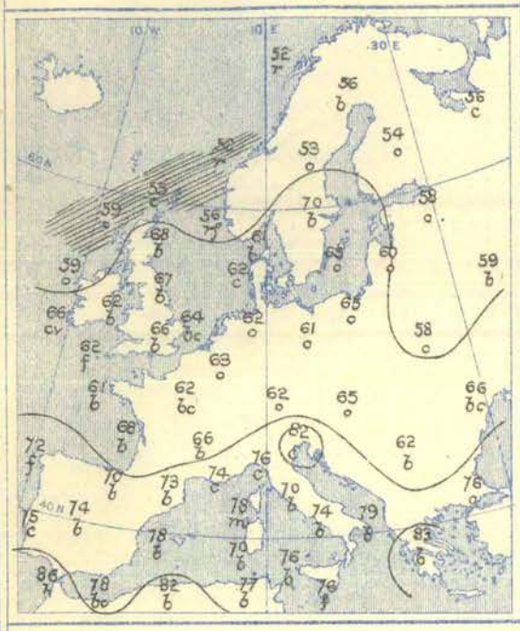
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

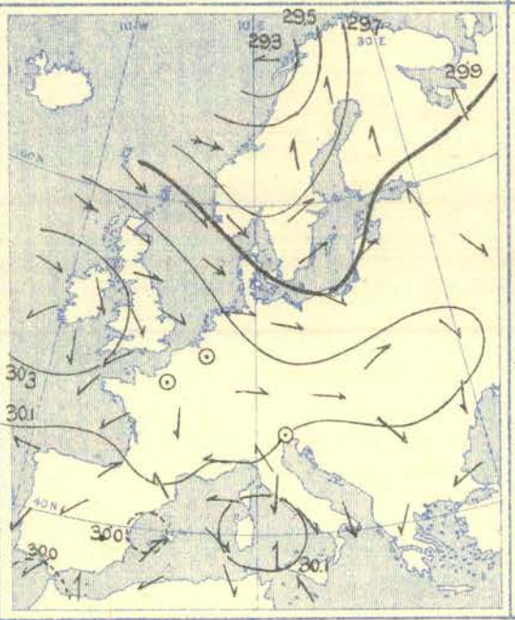
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 30th July.

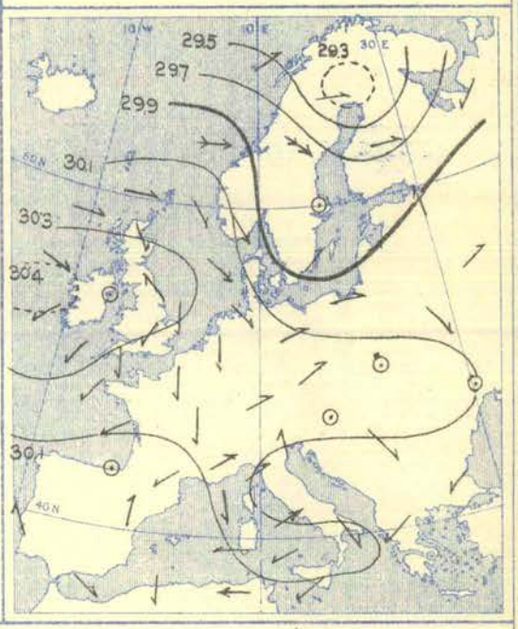
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the British Islands and France, dull over central and northern Europe, rainy in the west of Norway and at Breslau. Rain later in Norway and Finland and on the eastern shores of the Baltic, as well as in some parts of Hungary; remaining fine over England, Ireland and the greater part of France.

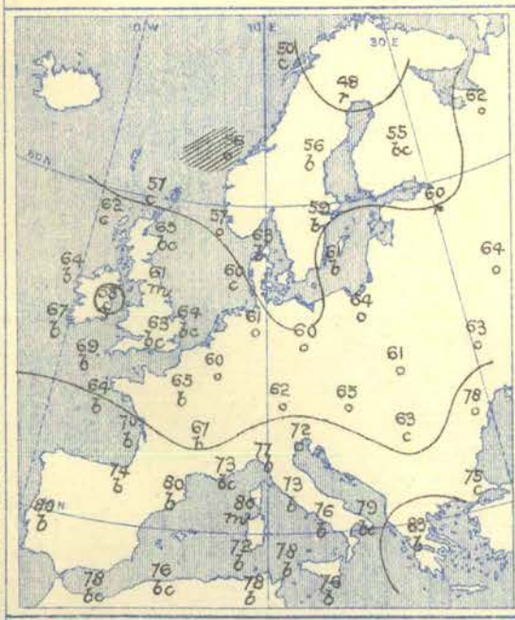
*Temperature* in morning highest 83° at Patras, 82° at Algiers and 78° at Palma, exceeding 70° over the Mediterranean generally. Lowest 52° at Bodö, 54° at Christiansund and Kuopio, 55° at Sumburgh Head, 56° at Archangel, 58° at St. Petersburg, 59° at Moscow. Rising later to 73° at Faerder, to 77° at Stockholm, 75° in the East of Scotland, 76° at Parsonstown, 84° in London, to 82° at Paris, 86° at Cagliari, 97° at Rochefort, and upwards of 100° at Aumale.

*Wind* Westerly in the north; Southerly over Finland; North-westerly in the east; Easterly over the most southern regions; blowing hard (from West) at Christiansund; blowing strongly from West in Scotland later, and from North-West on the eastern shores of the North Sea; remaining quiet elsewhere.

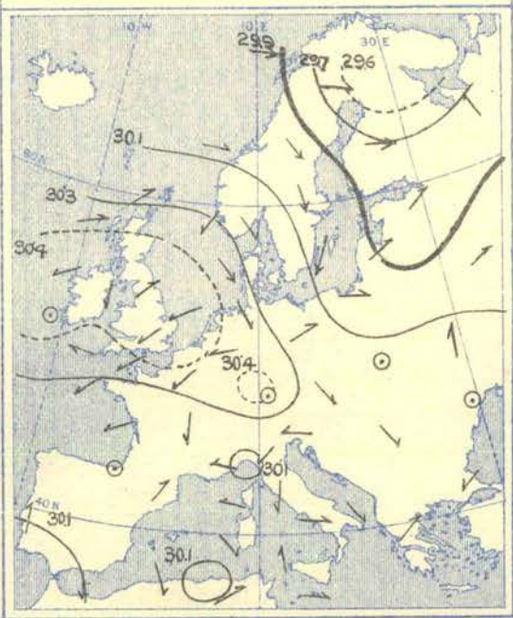
*Barometer* highest 30·3 ins. and more over Ireland, Wales, and the west of England, and exceeding 30·2 all over England and the north of France and western Germany. Lowest 29·2 ins. in the north-west of Norway, 30·1 ins. and less over the Mediterranean. Rising later over Norway and our Islands as well as over the North Sea.

## Monday, 31st July.

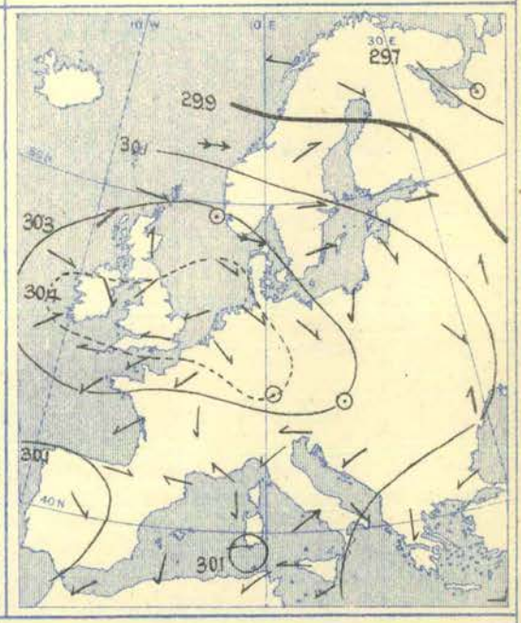
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over our Islands and France generally; foggy in the north of Ireland, hazy in many parts of England during the early hours. Dull over Norway and many parts of central Europe; rainy at Haparanda. Rain at Christiansund later; very fine over the British Islands and France.

*Temperature* in morning highest, 83° at Patras, 80° at Athens and at Barcelona; above 70° over the Mediterranean generally, and in Switzerland; above 60° over eastern and central Europe and France, with several parts of our Islands and the south of Scandinavia. Lowest, 48° at Haparanda, 56° to 57° in the west of Norway and the Shetlands. Rising later to 71° at Stornoway, 80° at Wick, Parsonstown, and Oxford, 85° at Loughborough, to 83° at Paris, 86° at Nice, and 97° at Rochefort.

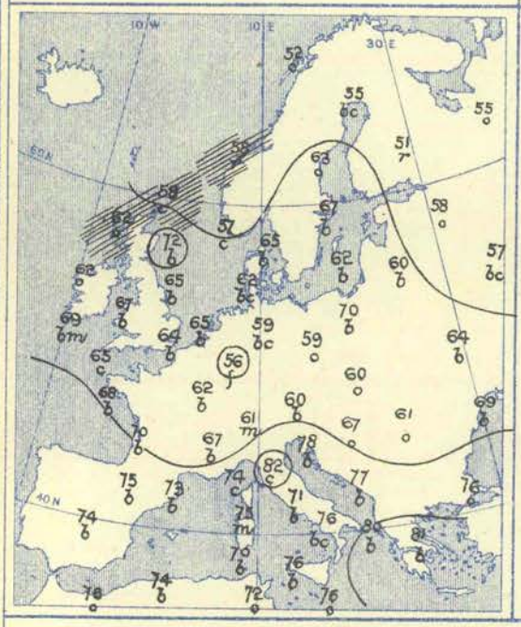
*Wind* (1) South-Westerly to Westerly in the Shetlands and Norway; North-Westerly to Northerly (a gale) over Sweden and the Baltic; (2) Easterly to North-Easterly moderate over the south of our Islands and in France; nearly calm over Ireland and the north of England. The South-Westerly and Westerly wind in the north spreading a little later; no change elsewhere.

*Barometer* (1) 30·4 ins. and more to 30·3 ins. all over our Islands, the Netherlands, and the north and east of France and west and south Germany. Lowest, (1) 29·6 ins. and less over the east of Lapland, and below 30·1 ins. over the south-west of Sweden and over Asia Minor. Falling a little at our north-western stations later; rising in the north of Norway; little change elsewhere.

## Tuesday, 1st August.

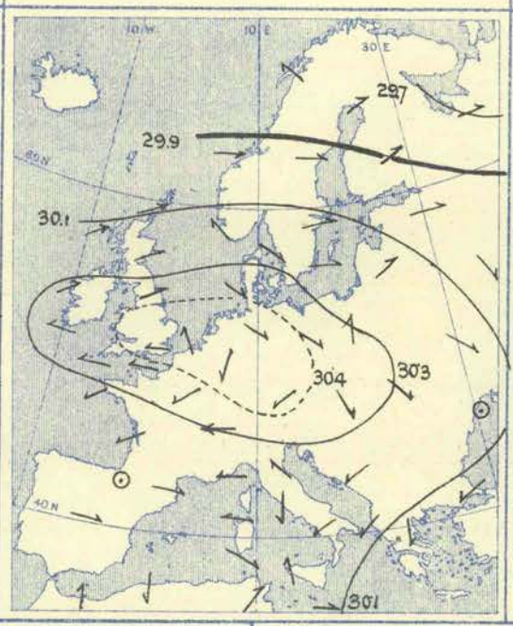
### Temperature and Weather.

8 a.m.

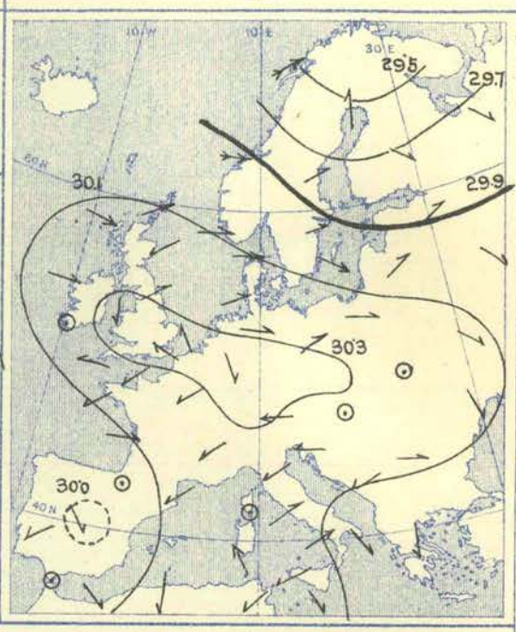


### Barometer and Wind.

8 a.m.




6 p.m.




*Weather* in morning fine over eastern, central, and western Europe with the British Islands; dull in Norway and rainy in places. Considerable rain in Norway and Lapland later—1·3 ins. at Bodö, some fall in the north of Scotland, and a little at Nice—fine and dry at the other stations.

*Temperature* still high over western Europe for time of year. Morning readings highest, (1) 81° at Patras, 80° at Brindisi, 78° at Bilbao, above 70° over the Mediterranean and southern Europe generally; (2) above 70° over the east and south of Scotland. Lowest, 52° at Bodö, 51° at Kuopio, 55° at Archangel, 58° at Sumburgh Head; rising later to 80° and more in many parts of Scotland and the north of England, to 83° at Parsonstown and in London, to 82° at Paris, 84° at Nice, but to 95° at Lorient, and to (?) 108° at Rochefort.

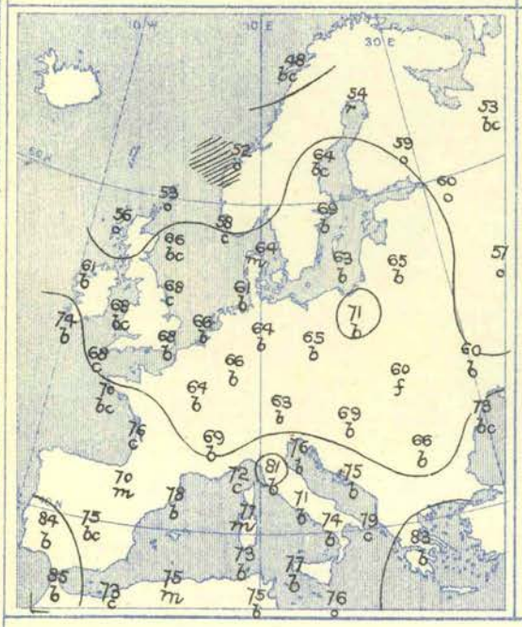
*Wind* South-Westerly to Westerly at all the northern stations, Easterly to North-Easterly in the south—the Westerly current being strong, the Eastern light to moderate. The Westerly wind decreasing in force later over Scotland, but blowing hard over Scandinavia.

*Barometer* highest, 30·4 ins. and more to 30·3 ins. in an anticyclonic system covering Ireland, England, the Netherlands, the east of France, and western Germany. Lowest, (1) 29·8 ins. and less over Lapland; (2) below 30·2 ins. over Portugal, the north of Spain, and the south-west of France. Falling generally later, but most of all over the north of Sweden; rising over central Europe.

## Wednesday, 2nd August.

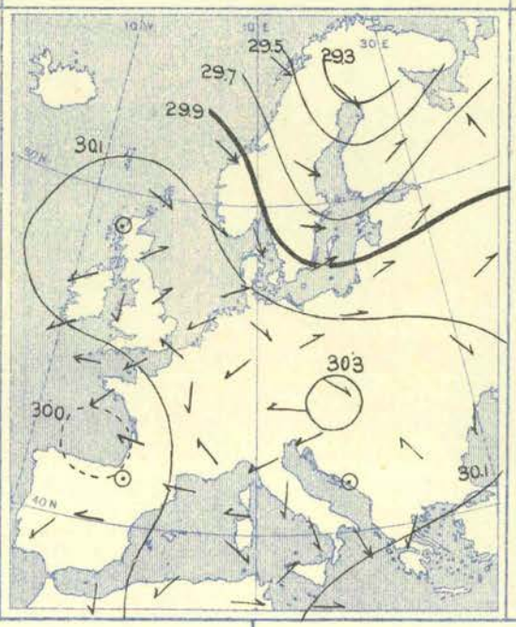
### Temperature and Weather.

8 a.m.

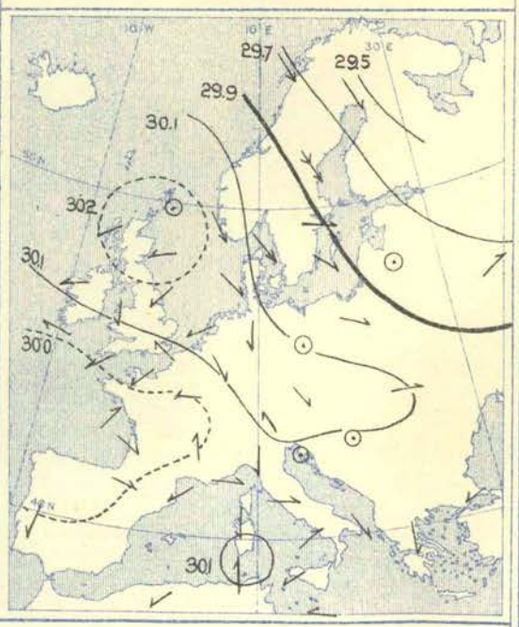


### Barometer and Wind.

8 a.m.




6 p.m.




*Weather* in morning fine over our Islands, Spain, France and Germany, but foggy or hazy in places; unsettled over northern Europe, with rain in places. Rain reported later at Bodö only of the stations in our area, but sky overcast in London at evening.

*Temperature* in morning highest, 88° at Patras, 81° at Leghorn, above 70° all over the Mediterranean, and at Valeucia (Ireland). Lowest, 48° at Bodö, 53° at Archangel, and Sumburgh Head, 56° at Stornoway, 59° both at Kuopio and Malin Head. Rising later to 79° at Parsonstown, 80° at Wick, 82° in London, 85° at Loughborough; (2) to 81° at Berlin, 88° at Paris and Nice, 97° at Rochefort.

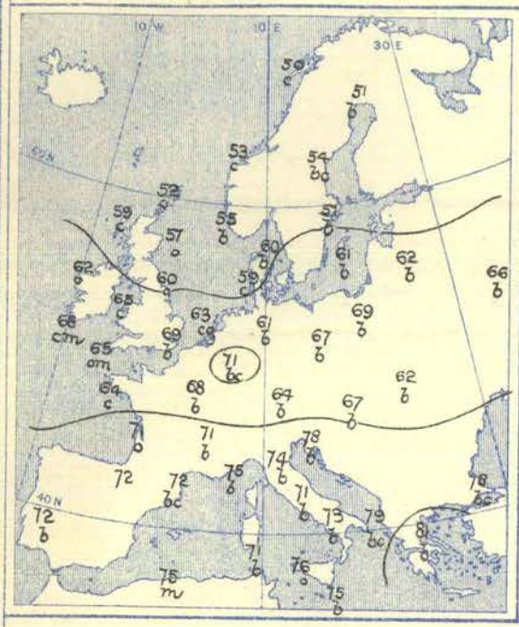
*Wind* was (1) South-Westerly to North-Westerly, strong and squally over northern Europe; (2) light Westerly in Scotland, Easterly at all our southern stations, North-Westerly over central Europe. The Westerly wind over Scandinavia falling light later.

*Barometer* highest, 30·3 ins. to 30·1 ins. in an anticyclone of irregular form, covering the whole of central Europe, the Mediterranean, France, and the British Isles. Lowest, (1) 29·3 ins. and less to 29·8 ins. in a depression over northern Europe, with its centre near Haparanda; (2) below 30·0 ins. over the Bay of Biscay. Falling generally all day, and a secondary disturbance appearing over France.

## Thursday, 3rd August.

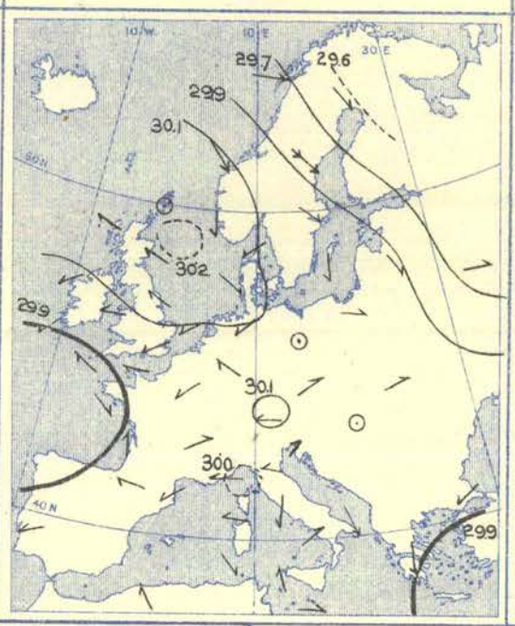
### Temperature and Weather.

8 a.m.

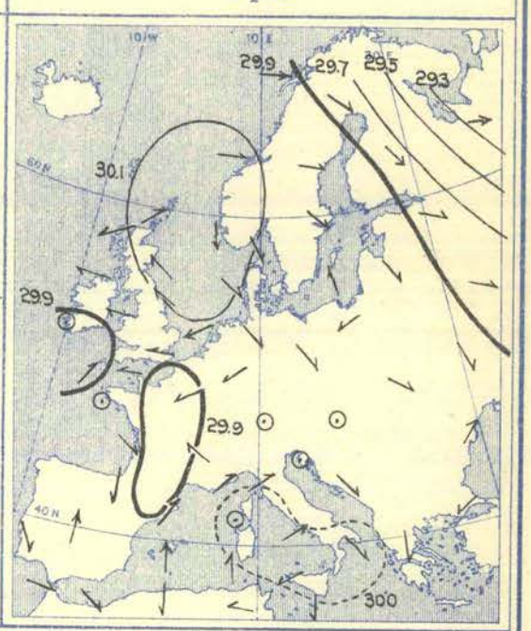


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning dull over Scotland and the north of Ireland and the eastern parts of England, fine over the southern parts of our Islands and the Continent, and in most places bright. Rain falling later in several south-western and southern localities, and at Bodo; thunder and lightning occurring in many parts of Ireland and England, as well as at Biarritz.

*Temperature* fallen at our northern stations and over Sweden. Morning readings highest 81° at Patras, 79° at Brindisi and Leghorn, 76° at Palermo, and above 70° over southern and south-eastern Europe generally, 68° at Paris, 69° in London, 67° at Berlin, 66° at Moscow. Lowest 50° to 51° in Lapland, 52° at Sumburgh Head, 53° at Christiansund, 57° at Aberdeen, 59° at Fanö and Spurn Head. Rising later to 73° at Loughborough, 77° at Parsonstown, 83° in London, and 85° at Jersey, to 81° at Berlin, 87° at Brussels, 90° at Lyons, and 91° at Paris.

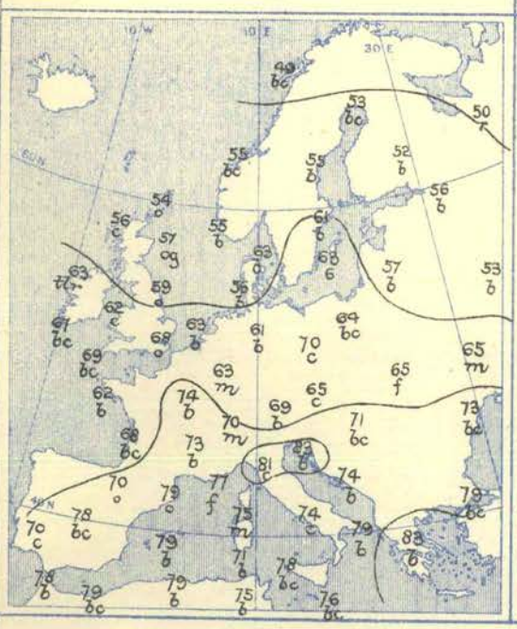
*Wind* (1) light to moderate from east and south-east over the greater part of our Islands; (2) variable over France and Germany; (3) North-westerly to Northerly, strong, over Sweden. The Easterly wind freshening greatly in the south of England at night.

*Barometer* highest, 30·2 ins. at Wick, and exceeding 30·1 ins. all over the northern parts of Great Britain, the North Sea and Norway; 30·1 ins. and more at Munich also. Lowest (1) 29·6 ins. and less over the East of Lapland and North of Finland; (2) 29·9 ins. and less over the Bay of Biscay; (3) 30·0 ins. and less over Turkey, Asia Minor and Greece. Changing irregularly in our Islands later.

## Friday, 4th August.

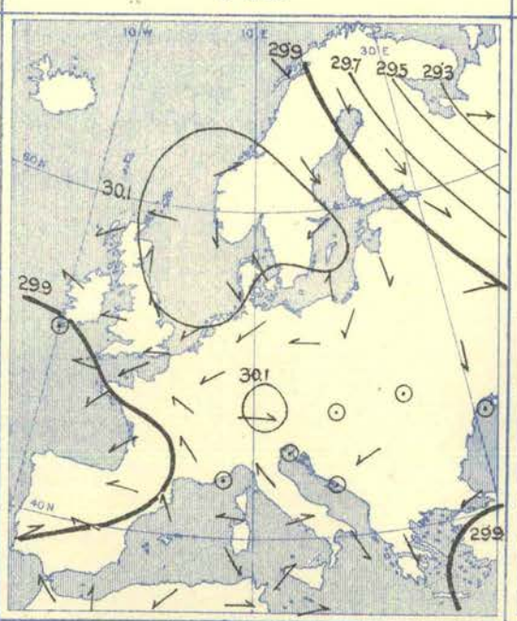
### Temperature and Weather.

8 a.m.

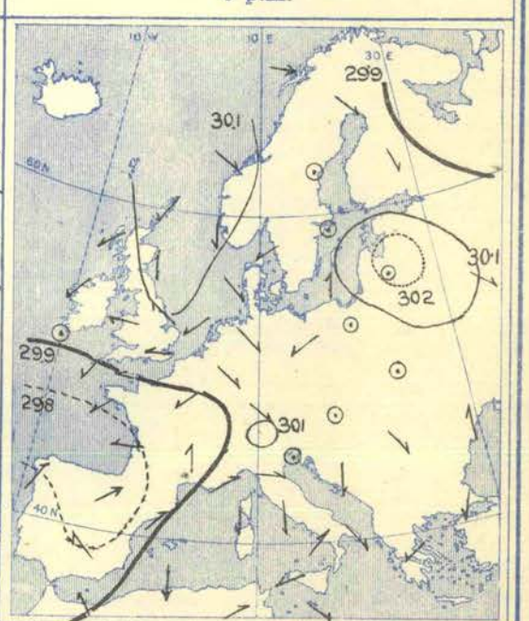


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over almost the whole of Europe, but dull and not settled over the south of England, with an angry appearance in most places. Some rain and thunder later over Cornwall, Devonshire, Wales and Ireland, thunder also at Loughborough, and rain and thunder at Biarritz. Overcast in London at night.

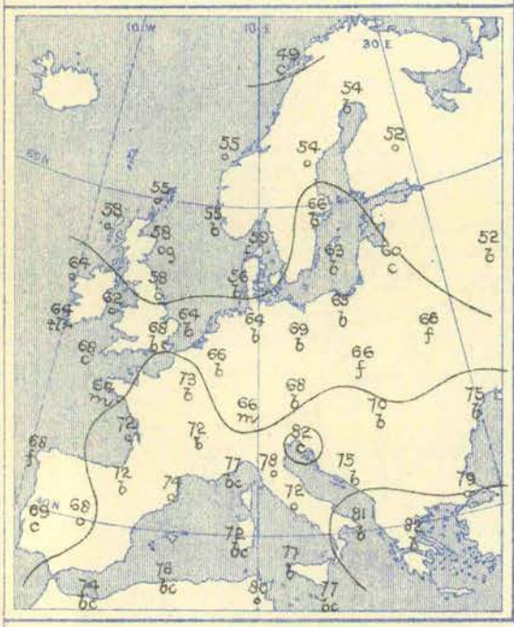
*Temperature* in morning 83° at Trieste and Patras, 81° at Leghorn, 79° at Constantinople, Brindisi and Barcelona, and above 70° over the Mediterranean and southern Europe generally. Lowest, 49° at Bodo, 50° at Archangel, 53° at Uleaborg and Moscow, 54° at Sumburgh Head, 55° at Christiansund and Skudesnaes, 56° at Stornoway, 57° at Aberdeen. Rising later to 71° at Parsonstown and Loughborough to 80° at Jersey and in London, to 84° at Berlin, 96° at Paris, 97° at Biarritz, 90° at Brindisi, 93° at Sanguinaires, 100° at Aumale.

*Wind* (1) Mainly Eastward over Ireland and England—strong at Dungeness, North-Westerly and strong over Finland and the north-east of Scandinavia; (2) very light and variable over Germany and France, as well as the Mediterranean. Becoming West-South-Westerly at Biarritz later, and increasing in force.

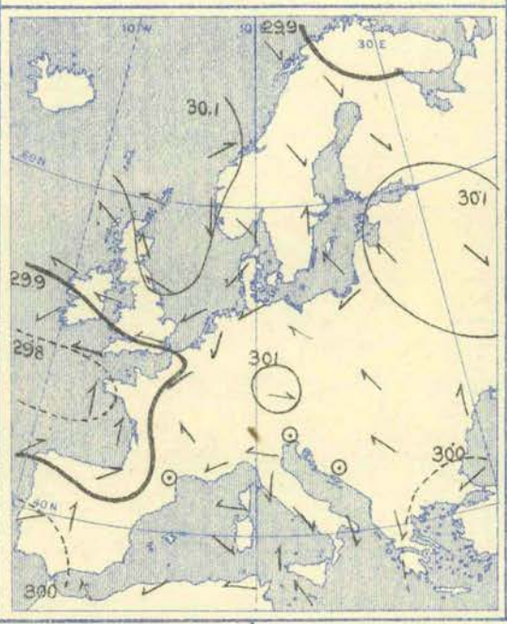
*Barometer* highest 30·1 ins. and more to 30·0 ins. over the southern half of Scandinavia and the northern parts of the North Sea, and exceeding 30·0 ins. over all the north-eastern parts of our Islands and over Germany. Lowest (1) 29·3 ins. and less to 29·8 ins. over the northern parts of Russia; and (2) 29·9 ins. and less over the Bay of Biscay, and off the south of Ireland and north of Spain. Falling slightly on our south-west coasts later, rising over Norway.

## Saturday, 5th August.

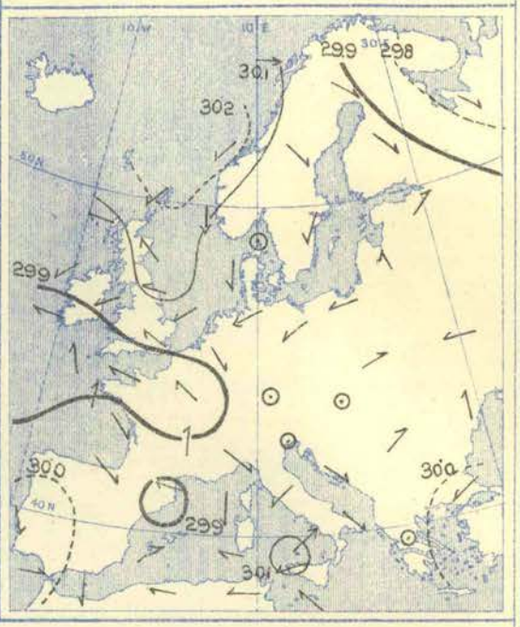
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning still fine over the greater part of the Continent and the east and south-east of England; dull over Scotland, unsettled at our western stations, changeable over Brittany. The rain and thunder continuing later over Ireland and spreading to our western and southern counties,—amounts of fall very variable.

*Temperature* in morning 77° to 70° over France as a whole, 70° to 65° over Germany, 68° to 60° over England and Ireland, 66° to 60° over the southern parts of Scandinavia. Lowest, 49° at Bodö, 52° at Knopio and Moscow; 55° at Sumburgh Head, 58° at Stornoway, Aberdeen, Donaghadee and Shields. Rising later to 83° in London, 86° at Berlin, 90° at Brussels, 96° at Paris and Nice; not exceeding 79° at Lisbon.

*Wind* (1) Easterly over England and Ireland, decreasing in force; South-Easterly in Scotland, Southerly over the Bay of Biscay; (2) very variable over the Continent as a whole. Becoming variable for a time, later, over France and the south and west of the British Islands.

*Barometer* in morning. Highest, (1) exceeding 30·1 ins. over the east of Scotland, the west of Norway, and the intermediate parts of the North Sea; 30·0 ins. and more over central Russia. Lowest—below 29·8 ins. off our south-west coasts. Below 30·0 ins. (1) over Lapland and the Kola Peninsula; (2) over Turkey and the Black Sea. Other secondary disturbances developed over France later, and advancing to the south of England.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇉ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the beginning of this week barometric pressure was highest over the British Islands, lowest over the extreme north of Europe, the readings varying from 30·48 ins. at Loughborough (England) to 29·6 ins. and less over eastern Lapland and the Kola Peninsula.

The weather in our Islands was fine, and temperature high. During the first day or two the anticyclone moved eastwards to north Germany and the southern parts of the North Sea, while a series of depressions passed North-Eastwards in the far north, keeping the weather changeable and showery in those districts, while it was fine over western and central Europe.

On Wednesday a new anticyclonic system was formed over Scotland, joined the old system and remained comparatively stationary. In the meantime depressions began to appear over the Bay of Biscay and our south-western coasts, causing showery, thundery weather in those regions and a great increase of Easterly wind over the Channel and our southern counties.

These thunderstorm depressions subsequently spread to our southern and south-eastern counties; rain fell more generally, except in the north, the air became close over England, and on Saturday the maximum daily temperature rose to 83° in London and to between 96° and 90° over France and Germany.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 182.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 25·3 | ? | 22 | ? | WATERGATE (Emsworth) | 76·0 | ? | 72 | ? |
| STRATHPEFFER SPA | 43·3 | +16·5 | 38 | +15 | BRIGHTON | 88·6 | +35·5 | 79 | +32 |
| EDINBURGH | 46·7 | +14·7 | 42 | +12 | WORTHING | 78·6 | ? | 74 | ? |
| MORPETH | 52·1 | ? | 48 | ? | BOGNOR | 82·9* | ? | 78* | ? |
| NEWCASTLE-ON-TYNE | 37·8 | ? | 35 | ? | EASTBOURNE | 82·0 | +34·0 | 77 | +32 |
| OSWALDKIRK (Yorkshire) | 47·5 | +14·1 | 44 | +14 | VENTNOR HOSPITAL | 66·9 | ? | 63 | ? |
| LOWESTOFT | 76·5 | ? | 72 | ? | SOUTHPORT | 58·1 | ? | 53 | ? |
| HOLLESLEY BAY | 82·5 | ? | 78 | ? | COLWYN BAY | | ? | | ? |
| SHEFFIELD | 53·0 | ? | 50 | ? | ABERDOVEY | 73·8* | ? | 69* | ? |
| WORKSOP | 62·7 | +27·5 | 59 | +27 | TENBY | 64·6 | +22·6 | 61 | +21 |
| THURCASTON (Leicestershire) | 74·4 | +37·6 | 70 | +36 | NEWQUAY | 64·8 | +19·8 | 62 | +18 |
| MARGATE | 69·3 | +26·2 | 65 | +25 | TORQUAY | 74·9 | +28·9 | 71 | +29 |
| WESTBOURNE (Emsworth) | 81·8* | +34·8 | 77* | +32 | GUERNSEY | 79·4* | +26·0 | 76* | +25 |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD. LITH. 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 32. | *Third Series.* WEEK ENDING SATURDAY, AUGUST 12TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 186.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 82 | 42 | 66·1 | 49·1 | 57·1 | 2 above | 106 | +19 | 0 | 0 | 1395* | +234 | 617 | − 6 |
| | 1. SCOTLAND, EAST | 83 | 35 | 66·7 | 48·6 | 57·1 | 0 (average) | 106 | + 3 | 0 | 0 | 1580 | +145 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 76 | 39 | 65·5 | 51·9 | 58·3 | 0 (average) | 114 | − 1 | 0 | 0 | 1783 | +278 | 456 | − 93 |
| | 3. ENGLAND, EAST | 79 | 44 | 70·9 | 53·6 | 61·7 | 1 above | 138 | +12 | 0 | 0 | 2069 | +294 | 421 | −196 |
| | 4. MIDLAND COUNTIES | 82 | 42 | 73·3 | 50·7 | 61·3 | 2 above | 135 | +14 | 0 | 0 | 2092 | +332 | 478 | −141 |
| | 5. ENGLAND SOUTH | 79 | 48 | 73·3 | 56·0 | 64·1 | 3 above | 155 | +22 | 0 | 0 | 2324 | +406 | 294 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 80 | 42 | 67·9 | 50·0 | 58·4 | 2 above | 115 | +10 | 0 | 0 | 1687 | +176 | 413 | − 49 |
| | 7. ENGLAND, N.W. | 78 | 43 | 69·3 | 53·3 | 60·8 | 1 above | 132 | +16 | 0 | 0 | 1927 | +305 | 313 | −146 |
| | 8. ENGLAND, S.W. | 81 | 46 | 73·3 | 56·3 | 64·3 | 4 above | 156 | +35 | 0 | 0 | 2228 | +412 | 240 | −121 |
| | 9. IRELAND, NORTH | 80 | 40 | 68·4 | 52·2 | 59·8 | 2 above | 125 | +19 | 0 | 0 | 1823* | +213 | 323 | − 72 |
| | 10. IRELAND, SOUTH | 79 | 41 | 72·4 | 54·2 | 62·8 | 4 above | 146 | +31 | 0 | 0 | 2174 | +343 | 245 | − 54 |
| | —CHANNEL ISLANDS | 81 | 60 | 72·2 | 61·8 | 66·7 | 5 above | 173 | +39 | 0 | 0 | 2606 | +577 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 186.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 0 | — | 9 less | 128 | −16 | 25·6 | − 1·5 | 59 | +45 | 54 | +42 | 894 | + 90 | 29 | + 3 |
| | 1. SCOTLAND, EAST | 1 | 1 | 7 less | 120 | + 3 | 19·6 | + 1·7 | 47 | +15 | 44 | +15 | 948 | + 45 | 32 | + 2 |
| | 2. ENGLAND, N.E. | 2 | 1 | 6 less | 111 | + 1 | 14·3* | − 0·5 | 36 | + 4 | 33 | + 3 | 922 | + 45 | 32 | + 2 |
| | 3. ENGLAND, EAST | 1 | less than ½ | 6 less | 96 | −11 | 12·2 | − 2·5 | 56 | +14 | 54 | +14 | 1289 | +193 | 42 | + 6 |
| | 4. MIDLAND COUNTIES | 1 | 2 | 5 less | 95 | −10 | 14·6 | − 1·4 | 51 | +16 | 49 | +15 | 1138 | +225 | 40 | + 7 |
| | 5. ENGLAND, SOUTH | 1 | 1 | 5 less | 83 | −17 | 12·6 | − 3·3 | 58 | +12 | 56 | +11 | 1366 | +254 | 46 | + 8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 1 | 2 | 9 less | 126 | + 3 | 28·7 | + 1·1 | 42 | + 9 | 41 | + 9 | 970 | + 13 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 1 | 1 | 7 less | 113 | 0 | 20·2 | + 1·6 | 60 | +29 | 57 | +27 | 1124* | +172 | 38 | + 5 |
| | 8. ENGLAND, S.W. | 1 | 5 | 4 less | 104 | −10 | 22·7 | + 1·2 | 73 | +30 | 70 | +28 | 1327 | +180 | 46 | + 7 |
| | 9. IRELAND, NORTH | 1 | 3 | 7 less | 133 | 0 | 21·4 | + 0·5 | 54 | +27 | 52 | +26 | 969 | + 82 | 33 | + 3 |
| | 10. IRELAND, SOUTH | 1 | 5 | 4 less | 114 | − 7 | 25·2 | + 2·9 | 62 | +30 | 59 | +29 | 1102 | +103 | 38 | + 4 |
| | — CHANNEL ISLANDS | 0 | — | 6 less | 99 | −20 | 15·8 | − 1·8 | 73 | +18 | 72 | +18 | 1462 | +218 | 53 | + 8 |

*Bright Sunshine* —Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was rather disturbed over England and Ireland at the commencement of the period, some rain, thunder and lightning occurring in the former country, and sharp thunderstorms and heavy local rains in the latter. After Monday, however, the conditions became fine and dry in all parts of the Kingdom, and continued so throughout the week.

*Temperature* was just equal to the mean in Scotland E. and England N.E., but above it again in all other districts, although the excess was much less striking than that of the preceding week. The highest of the maxima were recorded on varying dates in the different districts, and ranged from 83° in Scotland E., and 82° in Scotland N. and the Midland Counties, to 76° in England N.E. The lowest of the minima were registered, as a rule, on the 10th, when they varied from 35° in Scotland E. (at Braemar), and 39° in England N.E., to 48° in England S., and to 60° in the Channel Islands.

*Rainfall* was again less than the normal, the fall being extremely slight, except in England S.W. and over Ireland.

*Bright Sunshine* was again very prevalent and much in excess of the normal generally. The percentage of the possible duration ranged from 72 in the Channel Islands, 70 in England S.W., and 59 in Ireland S., to 41 in Scotland W. and 33 in England N.E.

*Barometer and Wind.*—At the commencement of the week shallow depressions were extending over our south-western districts from the South-Westward, while an anticyclone was developing to the northward and north-eastward of our Islands. As the week progressed the latter system moved slowly southwards, and the disturbances in the south-west were forced away from our immediate neighbourhood. Light or moderate North-Easterly and Easterly winds were consequently experienced during the greater part of the week, but towards its close, when the centre of the anticyclone lay over England and Ireland, the winds in the north became Westerly or North-Westerly.

* This value has been altered owing to the receipt of further information for a preceding week.

207 | 90 Wy. & S., Ltd.
913 | 70 8 | 99.

# II.—DATA from which the SUMMARY on page 187 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 59 | 44 | 57·3 | 47·6 | 52·2 | − 1·0 | 71 | 0 | 1 | 0·02 | − 0·70 | * | * | * | * |
| | Stornoway | 70 | 43 | 67·0 | 48·0 | 56·9 | + 2·3 | 104 | 0 | 0 | — | − 0·80 | 77·5 | +50·6 | 71 | +47 |
| | Wick | 67 | 46 | 61·9 | 50·1 | 55·7 | + 0·8 | 96 | 0 | 0 | — | − 0·62 | * | * | * | * |
| | Lairg § | 78 | 51 | 69·6 | 53·7 | 61·2 | + 6·7 | 133 | 0 | 0 | — | − 0·70 | * | * | * | * |
| | Glencarron § | 74 | 42 | 67·1 | 47·2 | 56·6 | + 1·8 | 102 | 0 | 0 | — | − 1·53 | * | * | * | * |
| | Fort Augustus § | 82 | 42 | 69·7 | 47·6 | 58·0 | + 1·3 | 112 | 0 | 0 | — | − 0·78 | 67·9 | +51·5 | 63 | +48 |
| | Fort William § | 73 | 44 | 69·8 | 49·7 | 59·2 | + 2·2 | 120 | 0 | 0 | — | − 1·36 | 70·7 | +50·2 | 65 | +46 |
| 1. SCOTLAND E. | Nairn | 74 | 42 | 66·6 | 48·0 | 56·7 | − 0·4 | 103 | 0 | 0 | — | − 0·70 | * | * | * | * |
| | Aberdeen | 70 | 39 | 63·1 | 49·1 | 55·7 | − 1·0 | 96 | 0 | 0 | — | − 0·79 | 50·5 | +16·5 | 47 | +16 |
| | Braemar § | 79 | 35 | 67·9 | 43·9 | 55·2 | + 1·2 | 92 | 0 | 0 | — | − 0·80 | 56·5† | +30·2† | 52† | +28† |
| | Ochtertyre § | 83 | 41 | 70·0 | 48·1 | 58·4 | + 0·8 | 115 | 0 | 2 | 0·17 | − 0·73 | * | * | * | * |
| | Leith § | 77 | 48 | 66·9 | 52·3 | 59·2 | + 0·5 | 120 | 0 | 2 | 0·12 | − 0·56 | * | * | * | * |
| | Marchmont § | 76 | 42 | 65·9 | 50·0 | 57·5 | + 1·2 | 109 | 0 | 1 | 0·25 | − 0·60 | 43·5 | + 8·5 | 41 | + 9 |
| 2. ENGLAND, N.E. | Alnwick Castle | 74 | 39 | 65·9 | 49·2 | 57·1 | + 0·2 | 106 | 0 | 1 | 0·12 | − 0·63 | * | * | * | * |
| | Durham | 76 | 43 | 67·2 | 50·3 | 58·2 | − 0·4 | 113 | 0 | 3 | 0·10 | − 0·62 | 32·9 | − 0·8 | 31 | 0 |
| | Shields | 71 | 48 | 64·1 | 52·4 | 57·9 | 0·0 | 111 | 0 | 2 | 0·12 | − 0·56 | * | * | * | * |
| | Scarborough ℳ | 71 | 46 | 64·2 | 51·5 | 57·5 | − 1·4 | 109 | 0 | 1 | 0·10 | − 0·57 | ? | ? | ? | ? |
| | Spurn Head | 68 | 54 | 66·0 | 55·9 | 60·7 | + 1·1 | 131 | 0 | 1 | 0·04 | − 0·41 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 75 | 48 | 72·5 | 53·1 | 62·2 | + 1·8 | 141 | 0 | 0 | — | − 0·70 | 68·6 | +27·8 | 65 | +27 |
| | Yarmouth | 68 | 53 | 66·7 | 57·6 | 61·9 | + 1·2 | 139 | 0 | 1 | 0·04 | − 0·56 | * | * | * | * |
| | Geldeston | 70 | 44 | 68·6 | 51·5 | 59·5 | − 1·1 | 123 | 0 | 0 | — | − 0·54 | 57·8 | +14·0 | 56 | +14 |
| | Cambridge | 79 | 46 | 75·9 | 51·6 | 63·0 | + 1·6 | 147 | 0 | 1 | 0·02 | − 0·57 | 47·8 | + 6·1 | 46 | + 7 |
| | Felixstowe | 71 | 49 | 69·1 | 55·0 | 61·6 | + 1·1 | 137 | 0 | 0 | — | ? | 55·8† | ? | 54† | ? |
| | Rothamsted | 77 | 45 | 72·7 | 52·6 | 62·1 | + 1·7 | 141 | 0 | 2 | 0·07 | − 0·55 | 51·9 | + 8·3 | 50 | + 8 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 82 | 43 | 73·1 | 48·7 | 60·2 | + 0·4 | 127 | 0 | 1 | 0·06 | − 0·64 | * | * | * | * |
| | Loughborough | 78 | 45 | 73·6 | 49·9 | 61·0 | − 0·1 | 133 | 0 | 1 | 0·01 | − 0·56 | * | * | * | * |
| | Stamford (Duddington) | 78 | 44 | 74·0 | 50·7 | 61·7 | + 0·5 | 138 | 0 | 1 | 0·02 | − 0·58 | * | * | * | * |
| | Cheadle ℳ | 77 | 48 | 71·0 | 51·5 | 60·7 | + 2·8 | 131 | 0 | 1 | 0·17 | − 0·62 | * | * | * | * |
| | Shirley (near Solihull) | 79 | 45 | 73·1 | 50·1 | 60·9 | + 0·6 | 132 | 0 | 2 | 0·09 | ? | * | * | * | * |
| | Churchstoke ℳ | 79 | 42 | 72·1 | 48·7 | 59·7 | + 1·6 | 124 | 0 | 0 | — | − 0·65 | 53·8 | +16·7 | 51 | +16 |
| | Hereford (Belmont) ℳ | 78 | 45 | 73·4 | 51·0 | 61·5 | + 1·4 | 137 | 0 | 2 | 0·15 | − 0·43 | * | * | * | * |
| | Cirencester | 77 | 48 | 73·9 | 52·3 | 62·5 | + 3·8 | 144 | 0 | 2 | 0·42 | − 0·33 | 63·2 | +22·4 | 61 | +22 |
| | Oxford | 77 | 47 | 75·4 | 53·0 | 63·5 | + 2·8 | 151 | 0 | 1 | 0·49 | − 0·11 | 49·1 | + 7·1 | 47 | + 6 |
| 5. ENGLAND, S. | London | 79 | 54 | 77·0 | 57·7 | 66·8 | + 4·7 | 174 | 0 | 1 | 0·04 | − 0·54 | 51·0† | +12·5† | 49† | +12† |
| | Cranley ℳ | 77 | 48 | 75·3 | 53·0 | 63·5 | + 1·6 | 151 | 0 | 0 | — | − 0·50 | * | * | * | * |
| | Dungeness | 73 | 54 | 70·4 | 59·9 | 64·8 | + 3·1 | 160 | 0 | 1 | 0·06 | − 0·54 | * | * | * | * |
| | Hastings (St. Leonards) | 74 | 54 | 71·2 | 57·0 | 63·7 | + 2·3 | 152 | 0 | 1 | 0·03 | − 0·57 | 60·2 | +12·2 | 58 | +12 |
| | Southampton | 79 | 53 | 76·4 | 56·0 | 65·6 | + 3·6 | 165 | 0 | 1 | 0·03 | − 0·64 | 60·3 | +14·3 | 59 | +15 |
| | Portland Bill | 71 | 52 | 69·3 | 55·0 | 61·7 | + 1·0 | 138 | 0 | 1 | 0·39 | ? | * | * | * | * |
| | Shaftesbury ℳ | 77 | 48 | 73·8 | 53·2 | 62·9 | + 3·6 | 146 | 0 | 1 | 0·03 | − 0·65 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 72 | 45 | 68·2 | 49·8 | 58·5 | + 1·8 | 116 | 0 | 0 | — | − 1·26 | * | * | * | * |
| | Glasgow | 75 | 46 | 66·0 | 50·9 | 58·0 | + 1·0 | 112 | 0 | 1 | 0·26 | − 0·65 | 30·2 | + 0·4 | 28 | 0 |
| | Glenlee § | 80 | 42 | 69·9 | 46·6 | 57·6 | + 0·5 | 109 | 0 | 1 | 0·37 | − 0·73 | * | * | * | * |
| | Douglas (Isle of Man) | 73 | 45 | 67·3 | 52·7 | 59·6 | + 2·5 | 123 | 0 | 1 | 0·08 | − 0·79 | 55·7 | +17·0 | 53 | +17 |
| 7. ENGLAND, N.W. | Stonyhurst | 77 | 46 | 69·6 | 51·8 | 60·2 | + 2·0 | 127 | 0 | 1 | 0·18 | − 1·00 | 59·4 | +26·4 | 56 | +25 |
| | Blackpool ℳ | 77 | 43 | 70·8 | 51·0 | 60·3 | + 0·8 | 128 | 0 | 1 | 0·21 | − 0·60 | 58·9 | +23·1 | 56 | +23 |
| | Manchester (Prestwich) | 78 | 46 | 71·2 | 51·3 | 60·7 | + 1·7 | 131 | 0 | 1 | 0·12 | − 0·78 | 46·4 | ? | 44 | ? |
| | Liverpool Obsy. (Bidston) | 73 | 50 | 69·0 | 54·3 | 61·2 | + 1·4 | 134 | 0 | 1 | 0·06 | − 0·67 | 48·3 | ? | 46 | ? |
| | Llandudno ℳ | 74 | 51 | 69·0 | 55·4 | 61·8 | + 1·2 | 139 | 0 | 1 | 0·07 | − 0·57 | 69·7 | +35·3 | 66 | +33 |
| | Holyhead | 68 | 53 | 66·0 | 55·9 | 60·7 | + 1·5 | 131 | 0 | 2 | 0·06 | − 0·61 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 81 | 46 | 77·6 | 52·0 | 64·0 | + 4·8 | 154 | 0 | 2 | 1·42 | + 0·34 | * | * | * | * |
| | Pembroke | 72 | 56 | 68·7 | 58·0 | 63·0 | + 4·0 | 147 | 0 | 2 | 0·36 | − 0·32 | 65·5 | +23·7 | 63 | +22 |
| | Clifton | 79 | 53 | 76·5 | 56·8 | 66·1 | + 5·7 | 169 | 0 | 2 | 0·38 | − 0·48 | * | * | * | * |
| | Arlington (N. Devon) | 77 | 50 | 73·7 | 54·7 | 63·6 | + 5·2 | 151 | 0 | 1 | 0·92 | − 0·35 | * | * | * | * |
| | Cullompton ℳ | 77 | 49 | 75·3 | 54·7 | 64·4 | + 4·0 | 157 | 0 | 1 | 0·27 | − 0·40 | 69·2 | +30·4 | 67 | +30 |
| | Falmouth | 72 | 57 | 69·0 | 59·4 | 63·9 | + 3·3 | 153 | 0 | 2 | 0·03 | − 0·80 | 69·7 | +24·4 | 68 | +24 |
| | Plymouth | 74 | 56 | 72·0 | 58·8 | 65·0 | + 3·7 | 161 | 0 | 0 | — | − 0·74 | 78·7 | +36·6 | 76 | +35 |
| 9. IRELAND, N. | Malin Head | 67 | 54 | 62·3 | 55·4 | 58·6 | + 1·1 | 116 | 0 | 1 | 0·03 | ? | * | * | * | * |
| | Londonderry | 79 | 45 | 72·7 | 50·9 | 61·2 | + 3·2 | 134 | 0 | 1 | 0·39 | − 0·54 | * | * | * | * |
| | Edenfel (Omagh) | 80 | 44 | 70·1 | 50·6 | 59·8 | + 3·1 | 125 | 0 | 1 | 0·88 | − 0·04 | * | * | * | * |
| | Belmullet | 76 | 52 | 70·6 | 56·0 | 62·9 | + 4·8 | 146 | 0 | 0 | — | − 1·08 | * | * | * | * |
| | Markree Castle | 77 | 40 | 71·8 | 48·6 | 59·5 | + 2·5 | 123 | 0 | 1 | 0·02 | − 0·95 | 57·8 | +31·6 | 55 | +30 |
| | Armagh | 76 | 44 | 68·0 | 50·4 | 58·7 | + 1·3 | 117 | 0 | 2 | 0·40 | − 0·35 | 50·9 | +24·7 | 48 | +23 |
| | Donaghadee | 67 | 53 | 63·0 | 53·7 | 58·1 | + 0·6 | 113 | 0 | 1 | 0·02 | − 0·74 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 72 | 49 | 67·4 | 54·4 | 60·5 | + 1·0 | 130 | 0 | 1 | 0·04 | − 0·68 | 55·5 | +20·7 | 53 | +20 |
| | Parsonstown | 77 | 43 | 73·4 | 51·7 | 61·9 | + 3·7 | 139 | 0 | 1 | 1·65 | + 0·76 | 56·8 | +27·2 | 54 | +26 |
| | Kilkenny | 75 | 41 | 72·3 | 51·7 | 61·4 | + 2·7 | 136 | 0 | 1 | 0·02 | − 0·72 | * | * | * | * |
| | Roche's Point | 70 | 55 | 69·7 | 58·4 | 63·7 | + 4·1 | 152 | 0 | 1 | 0·75 | − 0·15 | * | * | * | * |
| | Valencia | 78 | 51 | 74·0 | 55·7 | 64·3 | + 5·4 | 156 | 0 | 3 | 0·17 | − 0·87 | 74·1 | +41·5 | 71 | +40 |
| | Killarney | 79 | 45 | 76·0 | 52·9 | 63·8 | + 5·1 | 153 | 0 | 1 | 0·02 | ? | * | * | * | * |
| | Foynes | 77 | 51 | 74·2 | 54·9 | 64·0 | + 5·8 | 154 | 0 | 2 | 0·88 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 72 | 61 | 70·6 | 62·7 | 66·4 | + 5·7 | 171 | 0 | 0 | — | − 0·62 | 76·9 | ? | 75 | ? |
| | Jersey | 81 | 60 | 73·7 | 60·9 | 66·9 | + 4·2 | 174 | 0 | 0 | — | − 0·62 | 71·8 | +18·3 | 70 | +1 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

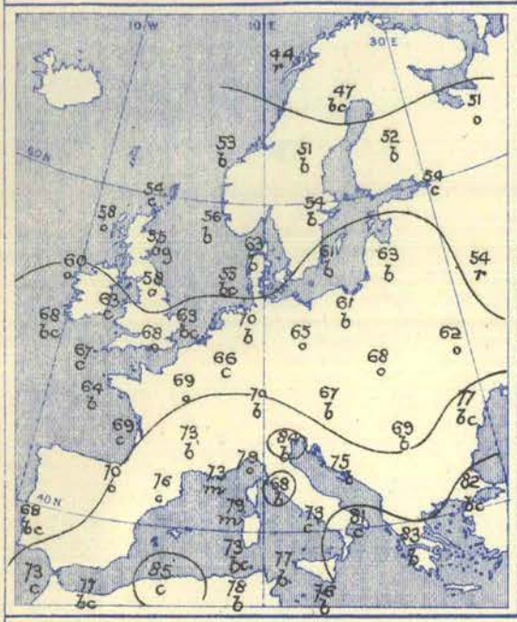
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observation made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 6th August.

### Temperature and Weather.

8 a.m.

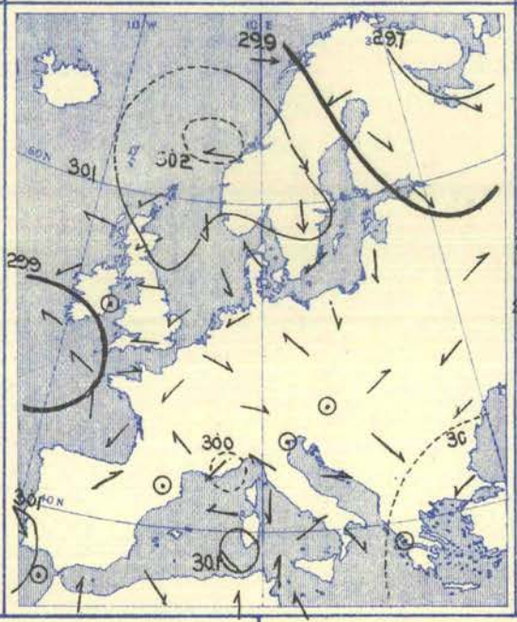


*Weather* in morning fine over France, central and south-eastern Europe; not so fair over England; dull over the extreme north and south-west of Europe, with rain at Christiansund. Some rain later in Norway, and the northern and western parts of our Islands, local showers in the south-east, and heavy falls in several parts of Germany and the east and south of France; thunderstorm at Biarritz.

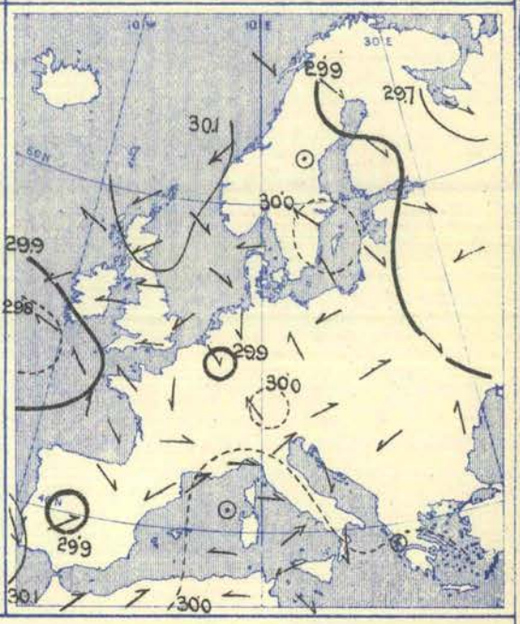
*Temperature* in morning, 85° at Algiers, 84° at Trieste, 83° at Athens, 81° at Brindisi, and above 70° over the Mediterranean; above 60° over the south of Russia, over Germany, France, and the southern parts of our Islands. Lowest, 44° at Bodö, and below 50° over Lapland generally; 51° at Archangel and Hernösand, 54° at St. Petersburg, Stockholm, and Sumburgh Head, 55° at Aberdeen, 58° at Wick and Shields. Rising later to 62° at Nairn, 67° at Loughborough, to 75° at Parsonstown and in London, 81° at Berlin, 80° at Paris, 90° at Lyons and Florence; not so high in Italy.

### Barometer and Wind.

8 a.m.



6 p.m.



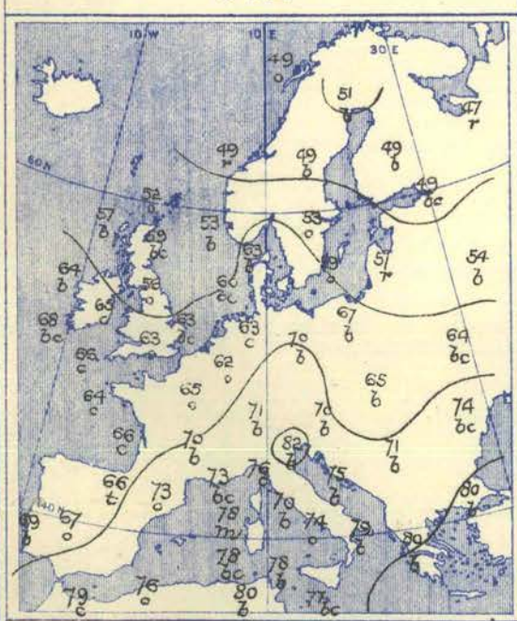
*Wind* light to moderate and anticyclonic (North-Westerly to Northerly as a whole) over the northern parts of our area, North-Easterly and variable in the south. Very variable and light (but cyclonic) over the Mediterranean and the south of France; Westerly to North-Westerly in Portugal. A South-Easterly to Easterly breeze setting in over Ireland later.

*Barometer* highest, 30·2 ins. at Christiansund, and exceeding 30·1 ins. over the east of Scotland, over Norway, and the south of Sweden. Lowest, 30·0 ins. and less over southern and south-eastern Europe. A small anticyclone, 30·1 ins. and more, over Sardinia and Corsica. Rising over our Islands later, falling over Russia and Austria. The anticyclone in the Mediterranean becoming more decided.

## Monday, 7th August.

### Temperature and Weather.

8 a.m.

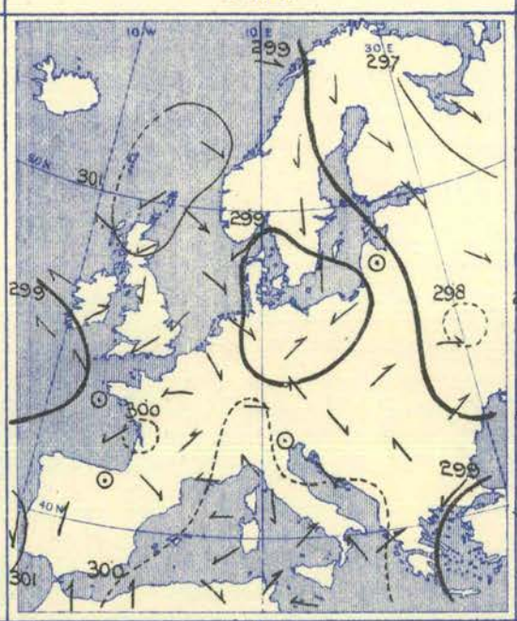


*Weather* in morning fine over eastern and central Europe, cloudy and close over our Islands, not at all settled in the west, thundery and changeable in various parts of France and Spain. Rain later over the southern parts of Scandinavia, thunderstorms in many parts of Ireland and the south-western and central parts of our Islands, and in the south-western and southern parts of France. Some rain in south Germany also.

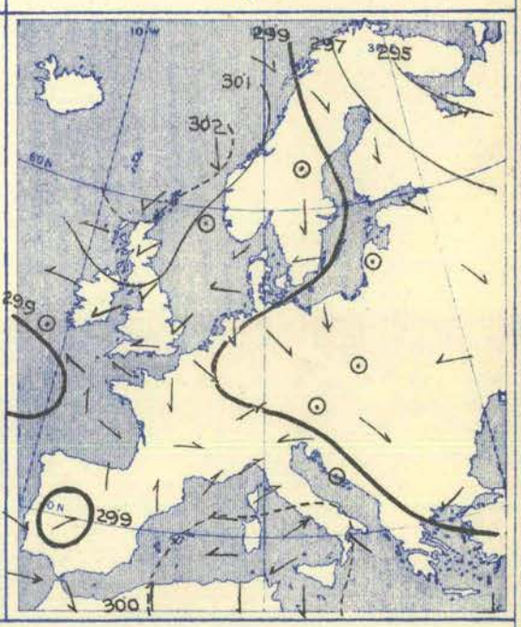
*Temperature* not changed much, but rising in Germany. Morning readings highest, 82° at Trieste, 80° at Athens and La Calle, 70° and more over the Mediterranean generally, in the south-east of France, and over south-eastern Europe. Lowest, 49° in the north-west of Norway, and below 60° over northern Europe as a whole. Rising later to 73° in London and Oxford, to 84° at Berlin and Munich, to 86° at Lyons, and to 88° at Lorient, but only slightly exceeding 60° in Scotland and over Scandinavia.

### Barometer and Wind.

8 a.m.



6 p.m.

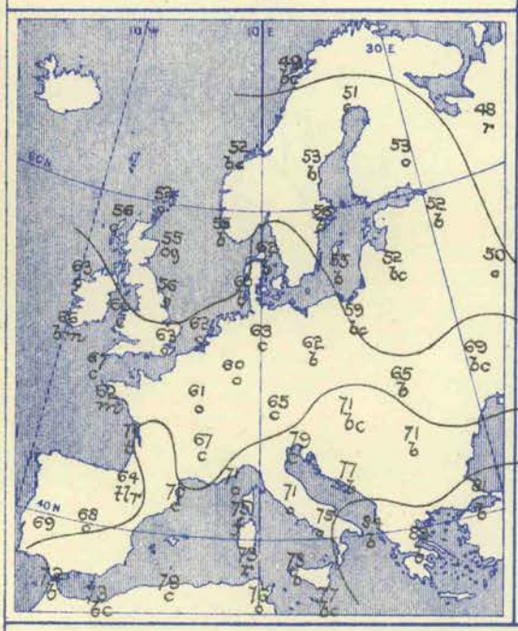


*Wind* (1) Easterly to South-Easterly and light at our western stations, and Northerly at Lisbon; (2) Westerly in the north-west of Norway, Northerly and North-Westerly over the North Sea, Southerly and variable over Germany; (3) very variable over the Mediterranean.

*Barometer* highest, (1) 30·1 ins. and more to 30·0 ins. over the northern and north-eastern parts of our area; (2) above 30·0 ins. over the south-east of France, Italy, Sicily, Tunis, and Algeria. Lowest, (1) 29·6 ins. to 29·7 ins. over the north of Russia; (2) below 29·9 ins. in a shallow disturbance over north Germany and the south of Scandinavia; (3) below 29·9 ins off the south-west of Ireland and the northern parts of the Bay of Biscay. Rising later in our Islands.

## Tuesday, 8th August.

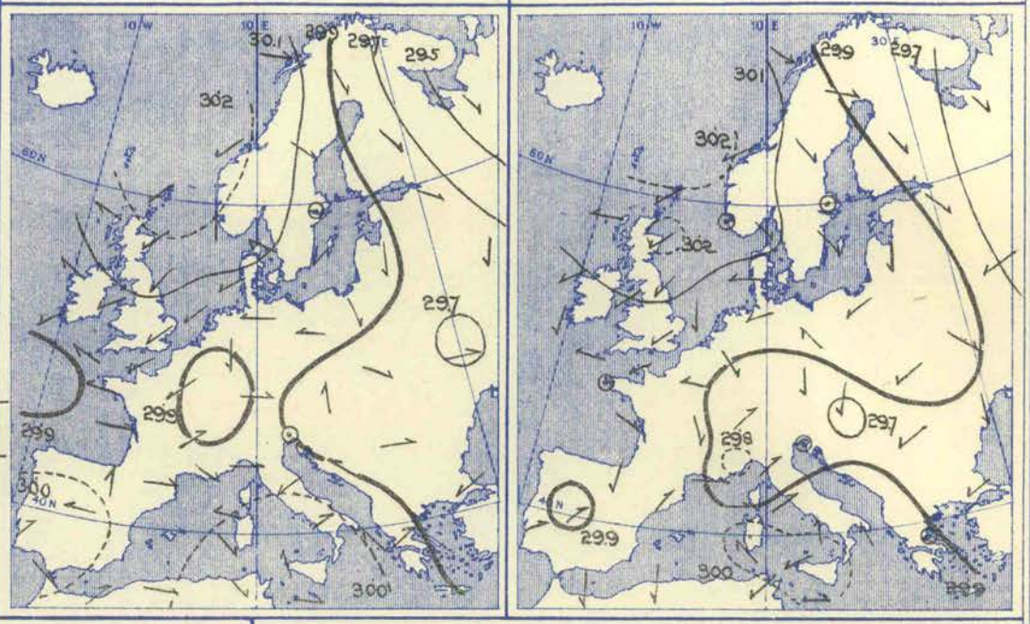
### Temperature and Weather. 8 a.m.



*Weather* in morning fair over our Islands, but very cloudy in many parts of Great Britain, gloomy at Aberdeen; unsettled with thunder and lightning in the southern parts of France, fair over Russia, Finland and Lapland. Slight rain later at a few of our stations, and considerable falls in south Germany and the south-east of France.

*Temperature* fallen decidedly over Germany and France, as well as at the Mediterranean stations. Morning readings above 80° in Greece and at Brindisi, and above 70° over the Mediterranean; above 60° over France and western Germany, and also over the southern parts of our Islands. Lowest, 49° at Bodö, above 50° over the greater part of Scandinavia and Scotland, 56° at Malin Head, and Shields. Rising later to 60° or more in several parts of Scotland, to 71° at Loughborough, 77° in London, 73° at Berlin and Paris, 83° at Perpignan.

### Barometer and Wind. 8 a.m. and 6 p.m.

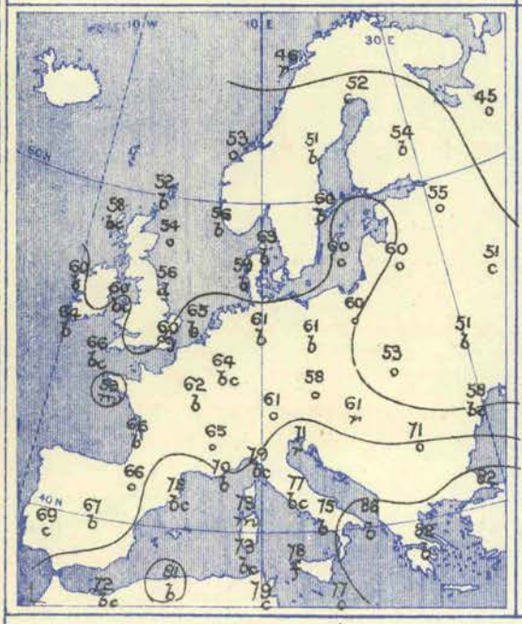


*Wind* moderate to light from North-West and West over northern Europe, from North-East and East over the North Sea and our Islands, but from the Westward in the south of France and some parts of the Mediterranean and south Germany.

*Barometer* highest, (1) 30·2 ins. and more to 30·1 ins. in an anticyclone covering Norway, the northern parts of our Islands and the intermediate parts of the North Sea; (2) 30·0 ins. and more over the south-western parts of the Iberian Peninsula. Lowest, (1) below 29·5 ins. in the north-east of Russia; (2) 29·7 ins. to 29·8 ins. over the south of Russia; (3) about 29·8 ins. to 29·9 ins. in a shallow depression over the eastern parts of France. Little change in our Islands later.

## Wednesday, 9th August.

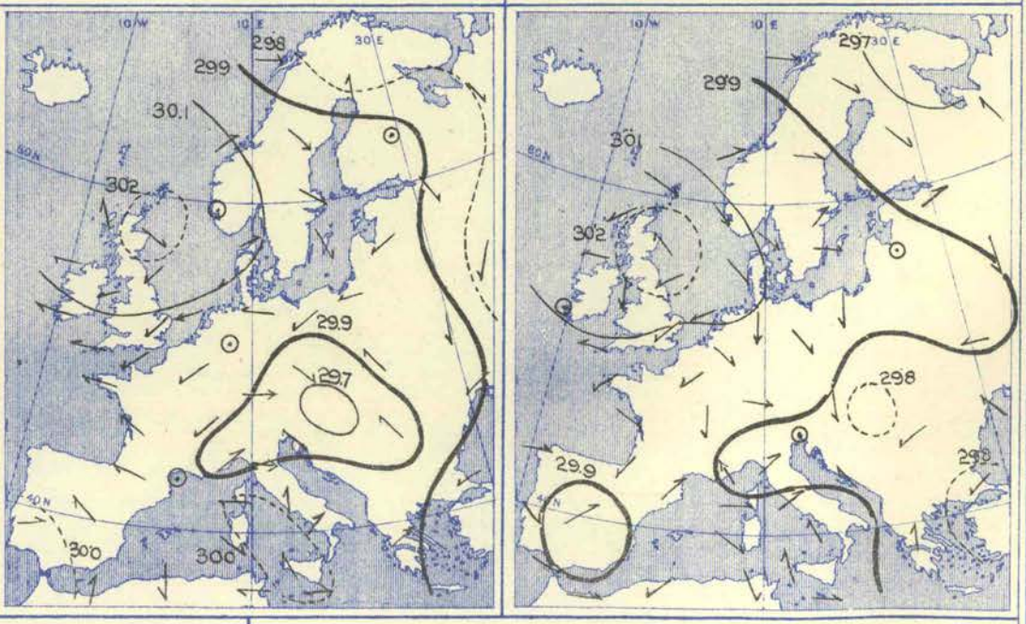
### Temperature and Weather. 8 a.m.



*Weather* in morning dull over Norway and the north-eastern parts of our Islands, with rain at Bodö and slight drizzle at Shields; fine over England and France, dull over central Europe, with rain in several places. A little rain in Norway later, but apparently a great deal over south Germany—as much as 0·83 ins. at Munich. Becoming very fine over our Islands.

*Temperature* fallen over Germany, and slightly fallen over central England. Morning readings highest, 82° in Greece, 81° at Algiers, 79° at Leghorn, 78° at Barcelona; above 60° all over France and the south of our Islands. Lowest, (1) 46° at Bodö, 51° at Hernösand, 52° at Sumburgh Head; (2) 54° to 52° over many parts of Germany. Rising later to 71° to 70° over Ireland, 76° at Loughborough, 79° in London; to 73° at Paris, 82° at Lyons, 84° at Nice and Biarritz.

### Barometer and Wind. 8 a.m. and 6 p.m.



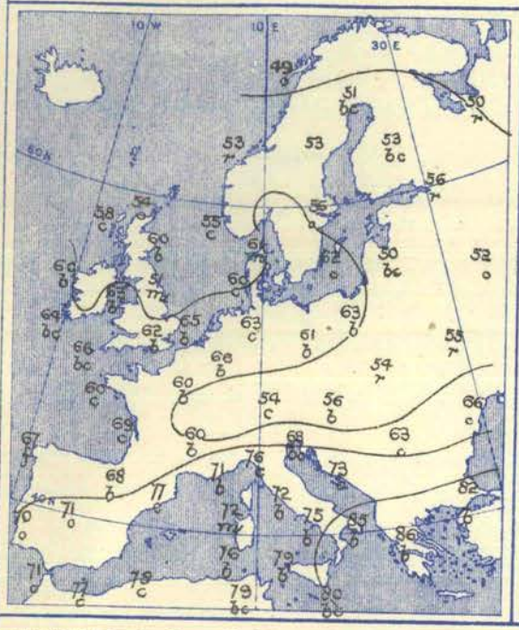
*Wind* (1) strong Westerly to North-Westerly in the north of Scandinavia, light over Finland; (2) variable over Scotland, North-Easterly to Easterly over Ireland, England and the Channel; (3) Easterly to Northerly over north Germany, Westerly in south Germany, South-Easterly at Lemberg.

*Barometer* highest, 30·2 ins. and more in Scotland, and exceeding 30·1 ins. over all but our southern counties, as well as over the North Sea and Norway. Lowest, (1) 29·8 ins. and less over Lapland and northern Russia; (2) 29·7 ins. and less in a depression over central Germany and in a secondary over the north of Italy. Very little change in our Islands later, but falling a little in the north of Scandinavia.

## Thursday, 10th August.

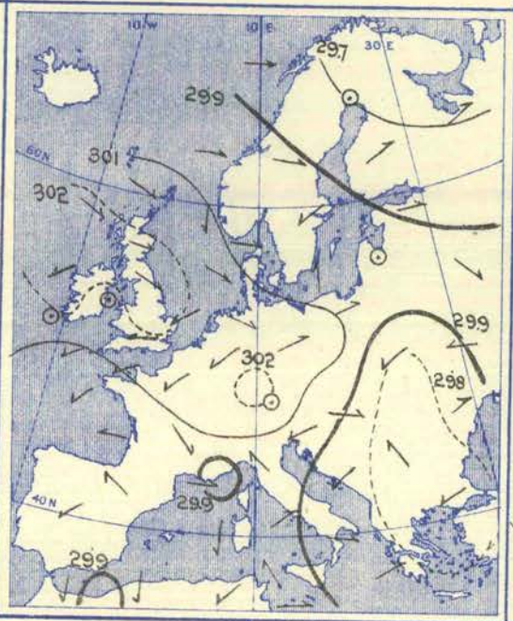
### Temperature and Weather.

#### 8 a.m.

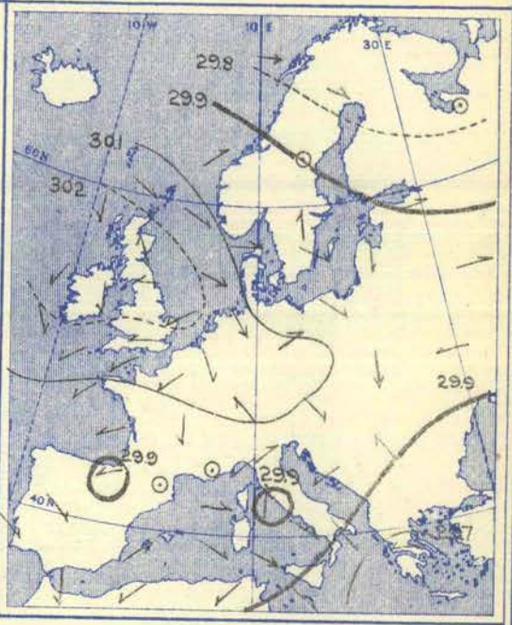


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fine and bright, except (1) over Lapland and the White Sea, and (2) over the south of Russia; dull in the north of Scotland. Some rain later in the extreme northern regions, none over our Islands and France, but a thunderstorm reported at Biarritz.

*Temperature* in morning highest, 82° to 86° over the extreme south-east of Europe, 78° at Algiers, 77° at Barcelona, and above 70° over the Mediterranean generally; 60° and more at many of the Continental stations, and in the south and west of our Islands. Lowest, 49° at Bodö, 50° to 53° over northern Europe generally, 54° at Sumburgh Head, 59° at Nairn, Donaghadee, and Loughborough, 51° at Shields (where the night had been quite cold). Rising during day to between 70° and 79° over the greater part of our Islands, to 81° at Jersey, 80° at Paris, 82° at Nice, 86° at Biarritz, and 99° at Rochefort.

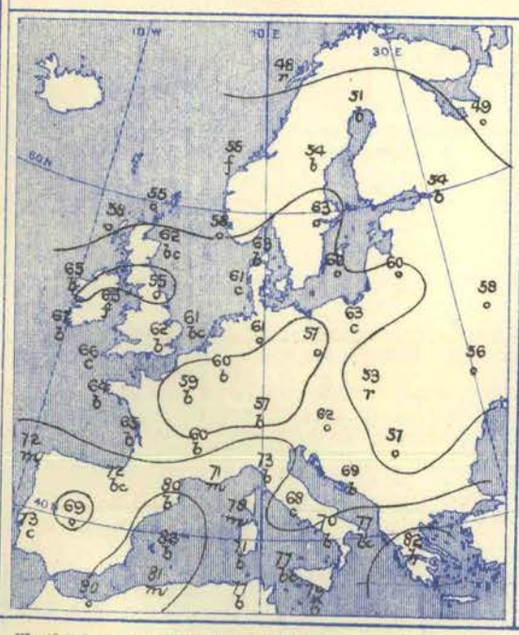
*Wind* (1) moderate to strong over Scandinavia and northern Russia, the direction being mainly North-Westerly in the former region, South-Westerly over Finland and the White Sea; (2) North-Westerly, moderate to light, over the northern parts of Scotland, North-Easterly to Easterly over Ireland, England, and the north and west of France, Easterly and variable (cyclonic) winds in the north of Italy.

*Barometer* highest, (1) 30·2 ins. and more to 30·1 ins. in an anticyclonic system over the whole of our Islands, the North Sea, the north-east of France, and north-west of Germany. Lowest, (1) 29·7 ins. and less over the Kola Peninsula and the White Sea; (2) 29·8 ins. and less over the Balkan Peninsula and part of Asia Minor, and below 29·9 ins. in a secondary over the Riviera. No decided change over our Islands later; falling a little over Scandinavia.

## Friday, 11th August.

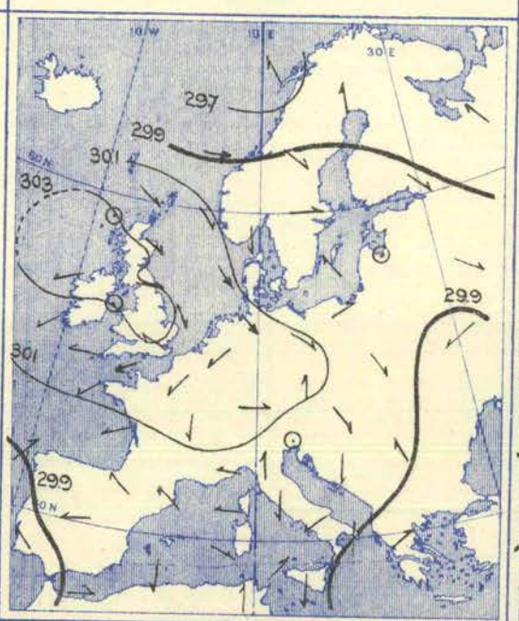
### Temperature and Weather.

#### 8 a.m.

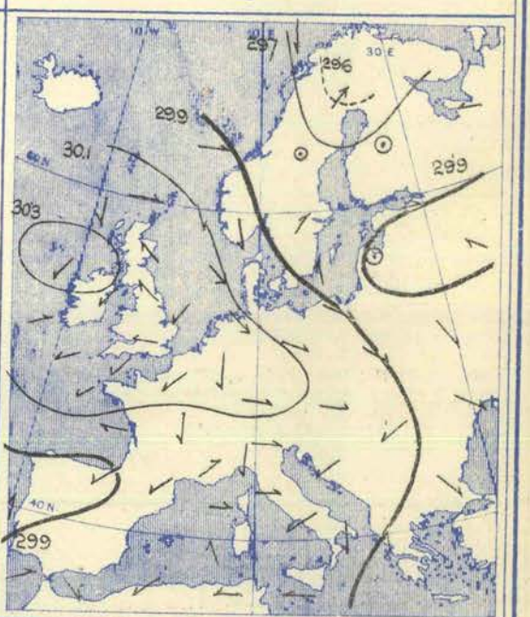


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning very fine and dry all over our Islands, France and Germany, becoming dull and rainy over Scandinavia, dull and rainy over the south of Russia, and a part of Hungary also. Rain later varying from 0·9 ins. to 0·8 ins. in the north-west of Norway, and 0·4 ins. at Wisby, to 0·4 ins. at Skagen, and to a few hundredths of an inch at most of the Swedish stations, and 0·1 in. at Trieste.

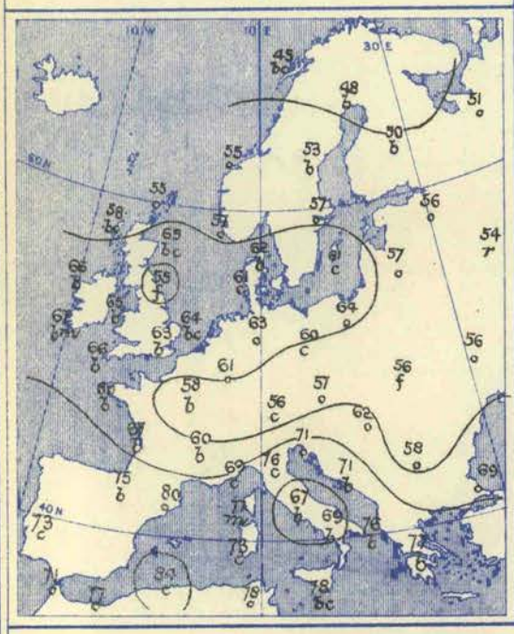
*Temperature* remaining above 80° in Greece; 81° at Algiers, 80° at Barcelona; above 70° at most of the Mediterranean stations, but 68° at Rome, 69° at Nice; Above 60° at most of the French stations, and those in the south and west of our Islands, in Denmark and the Baltic. Lowest, (1) 48° at Bodö, 51° at Haparanda, 55° at Sumburgh Head; (2) 53° at Lemberg, 54° at Cracow, 57° at Prague. Rising later to 73° at Nairn, 76° at Parsonstown, 78° at Valencia and in London, to 80° at Paris, and 93° at Rochefort, and 95° over central Russia, but not exceeding 66° at Berlin.

*Wind* (1) Westerly to North-Westerly over Scandinavia (but South-South-East at Bodö), North Westerly light in Scotland, strong in Holstein; (2) North-Easterly over the Channel, and the Bay of Biscay. Variable in different parts of Central Europe; (3) Easterly in the south of France, variable over the Mediterranean.

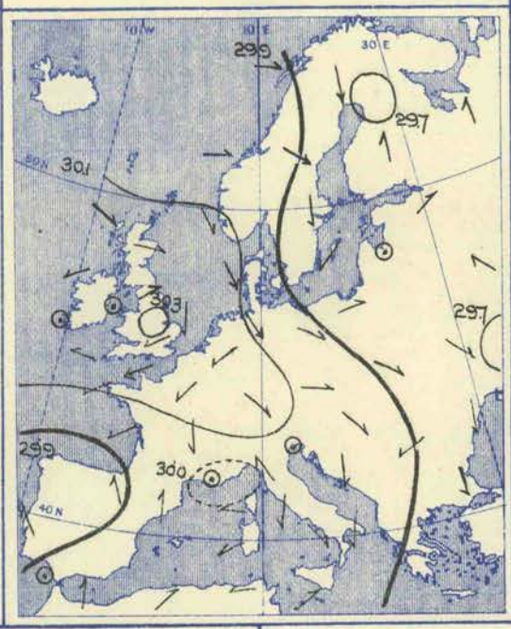
*Barometer* highest, 30·3 ins. and more to 30·2 ins. in an anticyclone over our Islands, and their immediate neighbourhood. Lowest, (1) 29·7 ins. and less to 29·8 ins. over Lapland and the Kola Peninsula; (2) 29·9 ins. and less over southern Russia; (3) 29·8 ins. at Lisbon. Falling over the Azores—report received late. No material change in our Islands later.

## Saturday, 12th August.

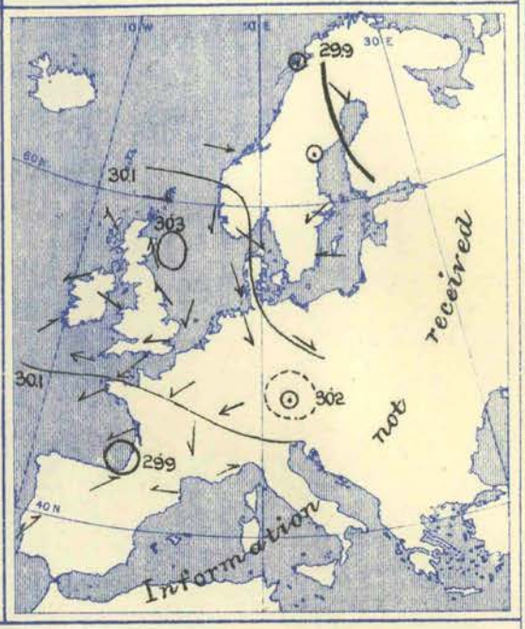
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.




*Weather* in morning fine over our Islands, France, the Mediterranean and Spain, and in nearly all regions bright; dull over central Europe, with rain in places. A little rain later in the north-west of Norway, and a considerable quantity at Lisbon; continuing fine and bright over the United Kingdom and France.

*Temperature* not changing much. Morning readings highest, 84° at Algiers, 80° at Barcelona, and above 70° at most of the Mediterranean and Adriatic stations; above 60° over France and Hungary, as well as over the greater parts of our Islands. Lowest, (1) 45° at Bodö, 48° at Haparanda, 50° at Kuopio; 55° at Sumburgh Head, 56° at Wick and Shields, 58° at Stornoway; (2) 54° at Moscow, 56° at Warsaw, Cracow, and Vienna. Rising later to 74° at Nairn, 77° at Parsonstown, at Oxford, in London, and at Lisbon; to 75° at Paris, 84° at Lorient, 88° at Biarritz, and 100° at Rochefort.

*Wind* Westerly to North-Westerly in Scotland, North-Westerly over the North Sea and Germany (a gale at Fanö); North-Easterly in the west of France, Easterly in the south of England; (2) South-Westerly over the Baltic Provinces, Southerly at Archangel. Northerly to Easterly and anticyclonic over the Mediterranean.

*Barometer* highest, 30·3 ins. and more over central England, and exceeding 30·1 ins. over the British Islands generally, over the North Sea, Belgium, the north and east of France, and the west and south-west of Germany. Lowest, 29·7 ins. and less in a depression over the west of Lapland and north of Finland, and also in a depression over the southern parts of Russia. No change in our Islands later.

### GENERAL NOTES.

At the commencement of this week an anticyclone was being formed over the west of Scandinavia and the east of Scotland, and was developing in a south-easterly direction, where a ridge spread South-Eastwards over the north-eastern and eastern parts of England. A depression off the south-west of our Islands brought slight falls of rain, with thunder and lightning to the west and south of our Islands, the largest amount of all being a local fall of 1·65 ins., which fell at Parsonstown on Monday (7th). Gradually, however, the anticyclone spread and moved Southwards till all the swirls were excluded from our area, and rain was absent from all stations in our Islands. Temperature was steadily high over England, but the maximum day temperature rose during the week by about 5° over central Scotland, and about 12° or 13° over central Ireland as the centre of the anticyclone moved Southwards, and the winds in the countries named, from North-East became Easterly and South-Easterly.

Meantime shallow depressions appeared over Lapland and northern Russia and moved Southwards over that country, while some more intense systems were found over Austria and northern Italy at times. As a consequence rain fell daily at Bodö, where the fall amounted to nearly 2 ins., and Christiansund had 1·5 ins., measurements being made on 6 days out of the 7.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 188.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| LERWICK (Orkney Islands) | 24·0 | ? | 22 | ? | WATERGATE (Emsworth) | 53·4 | ? | 52 | ? |
| STRATHPEFFER SPA | 55·3 | +29·1 | 51 | +28 | BRIGHTON | 66·2 | +18·2 | 64 | +17 |
| EDINBURGH | 39·0 | + 6·2 | 36 | + 6 | WORTHING | 62·0 | ? | 60 | ? |
| MORPETH | 42·5 | ? | 40 | ? | BOGNOR | 59·9* | ? | 58* | ? |
| NEWCASTLE-ON-TYNE | 24·8 | ? | 23 | ? | EASTBOURNE | 59·5 | +12·7 | 58 | +13 |
| OSWALDKIRK (Yorkshire) | 42·0 | + 9·5 | 39 | +10 | VENTNOR HOSPITAL | 60·0 | ? | 58 | ? |
| LOWESTOFT | 56·7 | ? | 55 | ? | SOUTHPORT | 53·3 | ? | 50 | ? |
| HOLLESLEY BAY | 54·0 | ? | 52 | ? | COLWYN BAY | 69·8 | ? | 66 | ? |
| SHEFFIELD | 35·7 | ? | 34 | ? | ABERDOVEY | 72·1* | ? | 69* | ? |
| WORKSOP | 50·2 | +15·7 | 48 | +16 | TENBY | 74·1 | +32·1 | 71 | +30 |
| THURCASTON (Leicestershire) | 52·6 | +15·9 | 50 | +15 | NEWQUAY | 77·5 | +32·4 | 75 | +31 |
| MARGATE | 36·6 | - 6·1 | 36 | - 5 | TORQUAY | 75·4 | +29·4 | 73 | +29 |
| WESTBOURNE (Emsworth) | 64·2* | +17·7 | 62* | +17 | GUERNSEY | 71·3* | +17·9 | 70* | +18 |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| DATE OF REPORT. | NAME OF STATIONS. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week ending June 10th, 1899 | Cambridge | — | — | — | — | — | — | — | — | — | — | — | 69·4 | +21·9 | 61 | +20 |
| " " " " " | Arlington | 83 | 45 | 75·9 | 53·9 | 64·1 | + 8·8 | 155 | 0 | 0 | — | -0·56 | — | — | — | — |
| " " " " " | Colwyn Bay | — | — | — | — | — | — | — | — | — | — | — | 100·2 | ? | 86 | ? |
| " " " 17th, " | Cambridge | — | — | — | — | — | — | — | — | — | — | — | 58·3 | +12·1 | 51 | +11 |
| " " " 24th, " | Cambridge | — | — | — | — | — | — | — | — | — | — | — | 30·5 | -14·8 | 26 | -13 |
| " " " " " | Kilkenny | 71 | 41 | 63·7 | 49·1 | 55·9 | - 1·5 | 97 | 0 | 3 | 1·00 | +0·48 | — | — | — | — |
| " " " " " | Tenby | — | — | — | — | — | — | — | — | — | — | — | 56·3 | + 1·5 | 49 | + 1 |

WYMAN & SONS, LTD., LITH., 63, CARTER LANE

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 33.] *Third Series.* WEEK ENDING SATURDAY, AUGUST 19TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 194.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 83 | 33 | 64·4 | 49·4 | 56·5 | 2 above | 102 | +16 | 0 | 0 | 1497 | +250 | 617 | - 6 |
| | 1. SCOTLAND, EAST | 79 | 40 | 66·7 | 48·9 | 57.3 | 1 above | 107 | + 5 | 0 | 0 | 1687 | +150 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 79 | 44 | 66·6 | 52·2 | 59·0 | 1 above | 119 | + 6 | 0 | 0 | 1902 | +284 | 456 | - 93 |
| | 3. ENGLAND, EAST | 89 | 45 | 71·6 | 55·2 | 62·9 | 3 above | 146 | +20 | 0 | 0 | 2215 | +314 | 421 | -196 |
| | 4. MIDLAND COUNTIES | 84 | 44 | 73·9 | 53·7 | 63·2 | 4 above | 148 | +28 | 0 | 0 | 2240 | +330 | 478 | -141 |
| | 5. ENGLAND SOUTH | 89 | 53 | 75·5 | 58·6 | 66·5 | 5 above | 172 | +39 | 0 | 0 | 2496 | +445 | 294 | -183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 78 | 41 | 67·6 | 52·1 | 59·4 | 3 above | 122 | +19 | 0 | 0 | 1809 | +195 | 413 | - 49 |
| | 7. ENGLAND, N.W. | 80 | 49 | 68·5 | 56·2 | 61·9 | 3 above | 139 | +24 | 0 | 0 | 2066 | +329 | 313 | -146 |
| | 8. ENGLAND, S.W. | 88 | 48 | 73·9 | 56·9 | 64·9 | 5 above | 160 | +40 | 0 | 0 | 2388 | +452 | 240 | -121 |
| | 9. IRELAND, NORTH | 84 | 42 | 69·1 | 53·8 | 61·0 | 4 above | 133 | +27 | 0 | 0 | 1956 | +240 | 323 | - 72 |
| | 10. IRELAND, SOUTH | 79 | 44 | 71·6 | 54·0 | 62·3 | 4 above | 142 | +27 | 0 | 0 | 2316 | +370 | 245 | - 54 |
| | —CHANNEL ISLANDS | 78 | 57 | 73·2 | 61·0 | 66·7 | 5 above | 173 | +39 | 0 | 0 | 2779 | +616 | 81 | - 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 194.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 5 | 7 | 2 less | 133 | -16 | 26·3 | - 1·7 | 39 | +18 | 37 | +17 | 933 | +109 | 29 | + 3 |
| | 1. SCOTLAND, EAST | 2 | 1 | 7 less | 122 | 0 | 19·7 | + 1·0 | 44 | +12 | 42 | +12 | 992 | + 57 | 32 | + 2 |
| | 2. ENGLAND, N.E. | 1 | 1 | 5 less | 112 | - 1 | 14·4 | - 1·0 | 30 | - 5 | 29 | - 3 | 952 | + 41 | 32 | + 2 |
| | 3. ENGLAND, EAST | 3 | 5 | 1 less | 99 | -11 | 12·7 | - 2·5 | 40 | - 2 | 39 | - 1 | 1329 | +191 | 42 | + 6 |
| | 4. MIDLAND COUNTIES | 2 | 4 | 3 less | 97 | -11 | 15·0 | - 1·6 | 43 | + 8 | 43 | + 9 | 1181 | +233 | 40 | + 7 |
| | 5. ENGLAND, SOUTH | *0 | 2 | 4 less | 83 | -20 | 12·8 | - 3·6 | 64 | +16 | 64 | +17 | 1430 | +270 | 47 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 5 | 4 | 6 less | 131 | + 4 | 29·1 | + 0·5 | 22 | - 1 | 31 | - 1 | 1002 | + 12 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 5 | 4 | 4 less | 118 | + 1 | 20·6 | + 1·2 | 44 | + 7 | 43 | + 7 | 1168 | +180 | 38 | + 5 |
| | 8. ENGLAND, S.W. | 1 | 1 | 8 less | 105 | -13 | 22·8 | + 0·5 | 75 | +32 | 75 | +32 | 1402 | +212 | 46 | + 7 |
| | 9. IRELAND, NORTH | 4 | 3 | 5 less | 137 | - 1 | 21·7 | - 0·1 | 49 | +21 | 48 | +21 | 1018 | +103 | 33 | + 3 |
| | 10. IRELAND, SOUTH | 1 | 2 | 6 less | 115 | -10 | 25·4 | + 2·2 | 59 | +27 | 58 | +26 | 1161 | +130 | 38 | + 4 |
| | — CHANNEL ISLANDS | 0 | — | 6 less | 99 | -24 | 15·8 | - 2·3 | 77 | +28 | 78 | +29 | 1539 | +246 | 54 | + 9 |

*Bright Sunshine*.—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was again generally fine over the greater part of England and the more southern parts of Ireland, the only exception being on Tuesday, when sharp thunderstorms were experienced in many parts of southern, central and eastern England. Over the north and west of Scotland, the north of Ireland, and the north-west of England the conditions were much less fair, rain being somewhat frequent and thunderstorms occurring in the north of Scotland on Tuesday.

*Temperature* was again above the mean, the excess ranging from 1° in Scotland E. and England N.E., to 4° in the Midland Counties and over Ireland, and to 5° in England S. and S.W. and the Channel Islands. The highest of the maxima were registered on the 13th in the west and north-west, but mostly on the 15th elsewhere ; they ranged from 89° in England S. and E., and 88° in England S.W., to 78° in Scotland W. and the Channel Islands. The lowest of the minima, which occurred on rather irregular dates, varied from 33° in Scotland N. (at Wick on the 19th) and 40° in Scotland E., to 49° in England N.W., 53° in England S., and 57° in the Channel Islands.

*Rainfall* was less than the mean in all districts, although the fall accompanying the thunderstorm on Tuesday was very heavy in places.

*Bright Sunshine* was again much above the mean in most parts of the Kingdom, but slightly below it in England E. and N.E. and Scotland W. The percentage of the possible duration ranged from 78 in the Channel Islands, 75 in England S.W., and 64 in England S. to 37 in Scotland N., 31 in Scotland W. and 29 in England N.E.

*Barometer and Wind.*—At the commencement of the week the centre of a large anticyclone lay over England, the winds being mainly Easterly in the south and west, and variable in the north. This system soon began to move away Eastwards and South-Eastwards to the Continent, and depressions moving North-Eastwards appeared in the north, and a shallow disturbance in the south-west. By Wednesday a new anticyclone lay over our south-western coasts, but a rather deep depression travelling Eastwards across the north of Scotland caused very strong Westerly or North-Westerly gales on the Scotch coasts, and freshening North-Westerly winds elsewhere. This disturbance was followed by some secondary systems over our northern districts, but the south-western anticyclone continued to spread, and by the end of the period embraced all but the extreme northern parts of the Kingdom.

* Rain fell at one station only in England S.—at Shaftesbury on Tuesday.

207 | 90 Wy. & S., Ltd.
913 | 70 8 | 99.

# II.—DATA from which the SUMMARY on page 193 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Rainfall. Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 62 | 44 | 57·3 | 49·0 | 52·9 | + 0·2 | 76 | 0 | 4 | 0·78 | - 0·02 | * | * | * | * |
| | Stornoway | 72 | 45 | 65·0 | 49·3 | 56·7 | + 2·5 | 103 | 0 | 6 | 0·64 | - 0·20 | 48·0 | +21·5 | 46 | +21 |
| | Wick | 69 | 33 | 62·3 | 45·3 | 53·3 | - 1·4 | 79 | 0 | 4 | 0·56 | - 0·06 | * | * | * | * |
| | Lairg § | 83 | 42 | 66·4 | 50·6 | 58·0 | + 3·0 | 112 | 0 | 4 | 0·42 | - 0·23 | * | * | * | * |
| | Glencarron § | 77 | 45 | 64·8 | 48·9 | 56·4 | + 1·7 | 101 | 0 | 6 | 1·36 | - 0·17 | * | * | * | * |
| | Fort Augustus § | 78 | 46 | 68·3 | 50·3 | 58·8 | + 2·3 | 118 | 0 | 4 | 0·35 | - 0·41 | 36·2 | +19·4 | 34 | +18 |
| | Fort William § | 75 | 50 | 66·4 | 52·7 | 59·1 | + 2·2 | 120 | 0 | 5 | 1·03 | - 0·35 | 36·2 | +16·6 | 34 | +16 |
| 1. SCOTLAND E. | Nairn | 70 | 43 | 66·7 | 47·3 | 56·4 | - 0·2 | 101 | 0 | 3 | 0·18 | - 0·47 | * | * | * | * |
| | Aberdeen | 70 | 40 | 63·7 | 48·3 | 55·5 | - 1·0 | 95 | 0 | 3 | 0.05 | - 0·67 | 55·1 | +21·1 | 52 | +20 |
| | Braemar § | 77 | 41 | 66·5 | 45·5 | 55·4 | + 1·9 | 94 | 0 | 2 | 0·03 | - 0·82 | 53·8† | +28·0† | 51† | +27† |
| | Ochtertyre § | 79 | 46 | 70·0 | 50·3 | 59·6 | + 2·5 | 123 | 0 | 3 | 0·10 | - 0·78 | * | * | * | * |
| | Leith | 71 | 50 | 66·1 | 52·3 | 58·8 | + 0·5 | 118 | 0 | 1 | 0·01 | - 0·61 | * | * | * | * |
| | Marchmont § | 78 | 45 | 67·4 | 49·4 | 57·9 | + 1·9 | 111 | 0 | 1 | 0·07 | - 0·73 | 39·0 | + 4·9 | 38 | + 5 |
| 2. ENGLAND, N.E. | Alnwick Castle | 71 | 44 | 67·9 | 50·4 | 58·6 | + 2·0 | 116 | 0 | 1 | 0·05 | - 0·65 | * | * | * | * |
| | Durham | 74 | 48 | 67·9 | 50·7 | 58·8 | + 0·7 | 118 | 0 | 2 | 0·18 | - 0·47 | 32·0 | - 1·1 | 31 | - 1 |
| | Shields | 70 | 49 | 64 6 | 51·7 | 57·8 | + 0·1 | 111 | 0 | 3 | 0·11 | - 0·55 | * | * | * | * |
| | Scarborough M | 79 | 48 | 66·5 | 52·3 | 59·0 | + 0·5 | 119 | 0 | 1 | 0·02 | - 0·58 | ? | ? | ? | ? |
| | Spurn Head | 70 | 52 | 66·0 | 55·9 | 60·7 | + 1·2 | 131 | 0 | 0 | — | - 0·41 | * | * | * | * |
| 3. ENGLAND, E. | Hillington M | 87 | 48 | 72·6 | 56·0 | 63·8 | + 4·0 | 153 | 0 | 3 | 1·58 | + 0·94 | 41·3 | + 1·5 | 40 | + 1 |
| | Yarmouth | 70 | 50 | 66·9 | 56·9 | 61·6 | + 1·4 | 137 | 0 | 1 | 0·14 | - 0·39 | * | * | * | * |
| | Geldeston | 82 | 45 | 69·9 | 52·8 | 60·8 | + 0·6 | 132 | 0 | 3 | 0·27 | - 0·21 | 30·1 | -12·9 | 30 | -12 |
| | Cambridge | 89 | 50 | 75·6 | 54·6 | 64·5 | + 3·8 | 158 | 0 | 3 | 0·51 | - 0·03 | 43·0 | + 1·9 | 43 | + 3 |
| | Felixstowe | 74 | 52 | 71·0 | 56·0 | 63·1 | + 3·4 | 148 | 0 | 3 | 0·14 | ? | 49·8† | ? | 49† | ? |
| | Rothamsted | 84 | 49 | 73·8 | 54·9 | 63·8 | + 4·2 | 153 | 0 | 3 | 0·31 | - 0·27 | 45·4 | + 2·7 | 45 | + 3 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 82 | 44 | 72·6 | 51·7 | 61·5 | + 2·1 | 137 | 0 | 3 | 0·29 | - 0·23 | * | * | * | * |
| | Loughborough | 82 | 45 | 74·3 | 53·3 | 63·2 | + 2·8 | 148 | 0 | 1 | 0·13 | - 0·41 | * | * | * | * |
| | Stamford (Duddington) | 84 | 47 | 74·0 | 53·7 | 63·2 | + 2·6 | 148 | 0 | 3 | 0·63 | + 0·11 | * | * | * | * |
| | Cheadle M | 77 | 51 | 70·3 | 54·3 | 61·8 | + 4·4 | 139 | 0 | 3 | 0·28 | - 0·52 | * | * | * | * |
| | Shirley (near Solihull) | 80 | 45 | 73·3 | 53·0 | 62·5 | + 2·6 | 144 | 0 | 3 | 0·57 | ? | * | * | * | * |
| | Churchstoke M | 79 | 49 | 73·0 | 52·0 | 61·9 | + 4·5 | 139 | 0 | 0 | — | - 0·62 | 44·7 | + 7·7 | 44 | + 8 |
| | Hereford (Belmont) M | 82 | 47 | 76·9 | 54·3 | 64·9 | + 5·1 | 160 | 0 | 2 | 0·08 | - 0·47 | * | * | * | * |
| | Cirencester | 80 | 52 | 75·9 | 55·9 | 64·9 | + 6·5 | 160 | 0 | 1 | 0·30 | - 0·40 | 55·7 | +15·2 | 55 | +16 |
| | Oxford | 84 | 51 | 75·4 | 55·4 | 64·8 | + 4·4 | 160 | 0 | 1 | 0·87 | - 0·33 | 49·8 | + 8·2 | 49 | + 8 |
| 5. ENGLAND, S. | London | 89 | 55 | 78·3 | 58·4 | 67·8 | + 5·9 | 181 | 0 | 0 | — | - 0·52 | 46·1† | + 8·1† | 46† | + 9† |
| | Cranley M | | | | | | | | 0 | | | | * | * | * | * |
| | Dungeness | 78 | 54 | 73·3 | 60·9 | 66·7 | + 5·0 | 173 | 0 | 0 | — | - 0·48 | * | * | * | * |
| | Hastings (St. Leonards) | 80 | 53 | 74·5 | 59·3 | 66·4 | + 5·2 | 171 | 0 | 0 | — | - 0·55 | 57·6 | +10·8 | 58 | +13 |
| | Southampton | 86 | 55 | 80·1 | 57·8 | 68·3 | + 6·7 | 184 | 0 | 0 | — | - 0·60 | 75·4 | +29 4 | 75 | +30 |
| | Portland Bill | 74 | 55 | 71·4 | 56·4 | 63·5 | + 2·7 | 151 | 0 | 0 | — | ? | * | * | * | * |
| | Shaftesbury M | | | | | | | | | 1 | 1·24 | + 0·59 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 78 | 50 | 67·2 | 52·6 | 59·5 | + 2·8 | 123 | 0 | 6 | 0·89 | - 0·34 | * | * | * | * |
| | Glasgow | 75 | 50 | 66·5 | 53·2 | 59·5 | + 2·9 | 123 | 0 | 4 | 0·22 | - 0·68 | 16·0 | -13·0 | 15 | -13 |
| | Glenlee § | 74 | 41 | 67·9 | 49·7 | 58·3 | + 1·7 | 114 | 0 | 4 | 0·23 | - 0·85 | * | * | * | * |
| | Douglas (Isle of Man) | 78 | 44 | 68·7 | 52·7 | 60·2 | + 3·5 | 127 | 0 | 4 | 0·33 | - 0·55 | 47·0 | + 9·6 | 46 | +10 |
| 7. ENGLAND, N.W. | Stonyhurst | 77 | 49 | 66·9 | 54·5 | 60·3 | + 2·5 | 128 | 0 | 5 | 0·34 | - 0·84 | 43·9 | +11·7 | 43 | +12 |
| | Blackpool M | 75 | 52 | 67·5 | 56·0 | 61·4 | + 2·0 | 136 | 0 | 4 | 0·38 | - 0·39 | 31·9 | - 3·6 | 31 | - 2 |
| | Manchester (Prestwich) | 80 | 50 | 68·9 | 53·3 | 60·6 | + 2.1 | 130 | 0 | 5 | 0·43 | - 0·43 | 36.1 | ? | 35 | ? |
| | Liverpool Obsy. (Bidston) | 78 | 55 | 68·9 | 56·7 | 62·4 | + 2·7 | 143 | 0 | 5 | 0·25 | - 0·40 | 42·4 | ? | 41 | ? |
| | Llandudno M | 76 | 57 | 70·4 | 59·3 | 64·5 | + 4·5 | 158 | 0 | 6 | 0·48 | - 0·12 | 48·1 | +13·9 | 47 | +13 |
| | Holyhead | 73 | 55 | 68·4 | 57·1 | 62·4 | + 3·4 | 143 | 0 | 4 | 0·24 | - 0·44 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 88 | 48 | 79·6 | 53·1 | 65·6 | + 6·6 | 165 | 0 | 0 | — | - 1·06 | * | * | * | * |
| | Pembroke | 70 | 56 | 68·1 | 58·9 | 63·2 | + 4·3 | 148 | 0 | 0 | — | - 0·66 | 70·6 | +28·4 | 70 | +28 |
| | Clifton | | | | | | | | | | | | * | * | * | * |
| | Arlington (N. Devon) | 81 | 53 | 73·9 | 56·0 | 64·4 | + 6·9 | 157 | 0 | 1 | 0·02 | - 1·18 | * | * | * | * |
| | Cullompton M | 83 | 50 | 77·4 | 54·3 | 65·2 | + 5·3 | 162 | 0 | 1 | 0·03 | - 0·62 | 72·1 | +32·3 | 72 | +33 |
| | Falmouth | 75 | 59 | 70·5 | 60·2 | 65·0 | + 4.8 | 161 | 0 | 2 | 0·39 | - 0·43 | 74·8 | +28·8 | 75 | +29 |
| | Plymouth | 76 | 56 | 74·0 | 58·6 | 65·8 | + 4·7 | 167 | 0 | 0 | — | - 0·67 | 78·3 | +36·2 | 78 | +37 |
| 9. IRELAND, N. | Malin Head | 74 | 55 | 65·1 | 57·4 | 61·0 | + 3·5 | 133 | 0 | 3 | 0·30 | ? | * | * | * | * |
| | Londonderry | 84 | 48 | 72·9 | 53·3 | 62·5 | + 4·8 | 144 | 0 | 3 | 0·47 | - 0·41 | * | * | * | * |
| | Edenfel (Omagh) | 77 | 43 | 69·4 | 52·1 | 60·2 | + 3·9 | 127 | 0 | 3 | 0·20 | - 0·66 | * | * | * | * |
| | Belmullet | 74 | 50 | 67·9 | 57·3 | 62·3 | + 4·2 | 142 | 0 | 4 | 0·42 | - 0·62 | * | * | * | * |
| | Markree Castle | 77 | 42 | 71·0 | 51·7 | 60·8 | + 4·2 | 132 | 0 | 4 | 0·38 | - 0·54 | 44·2 | +17·0 | 43 | +17 |
| | Armagh | 74 | 48 | 70·1 | 52·2 | 60·6 | + 3·3 | 130 | 0 | 4 | 0·16 | - 0·56 | 53·7 | +27·7 | 52 | +27 |
| | Donaghadee | 73 | 47 | 67·3 | 52·4 | 59·4 | + 2·1 | 122 | 0 | 5 | 0·43 | - 0·31 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 74 | 50 | 71·9 | 56·0 | 63·5 | + 4·3 | 151 | 0 | 1 | 0·15 | - 0·51 | 56·8 | +21·9 | 56 | +22 |
| | Parsonstown | 77 | 46 | 71·9 | 53·9 | 62·4 | + 4·4 | 143 | 0 | 2 | 0·56 | - 0·26 | 58·7 | +29·1 | 58 | +29 |
| | Kilkenny | 75 | 45 | 72·7 | 52·1 | 61·8 | + 3·2 | 139 | 0 | 2 | 0·09 | - 0·71 | * | * | * | * |
| | Roche's Point | 74 | 52 | 70·6 | 56·7 | 63·2 | + 3·7 | 148 | 0 | 0 | — | - 0·90 | * | * | * | * |
| | Valencia | 77 | 48 | 70·4 | 53·1 | 61·2 | + 2·3 | 134 | 0 | 1 | 0·04 | - 1·06 | 61·3 | +28·5 | 61 | +29 |
| | Killarney | 78 | 44 | 72·8 | 51·3 | 61·4 | + 2·6 | 136 | 0 | 1 | 0·20 | ? | * | * | * | * |
| | Foynes | 79 | 51 | 71·1 | 55·1 | 62·6 | + 4·4 | 144 | 0 | 2 | 0·47 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 72 | 59 | 70·9 | 61·3 | 65·8 | + 5·4 | 167 | 0 | 0 | — | - 0·58 | 67·5 | ? | 68 | ? |
| | Jersey | 78 | 57 | 75·4 | 60·6 | 67·6 | + 4·9 | 179 | 0 | 0 | — | - 0·55 | 81·4 | +27·2 | 82 | +28 |

Stations marked M are in connection with the Royal Meteorological Society, and those marked § with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observation made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

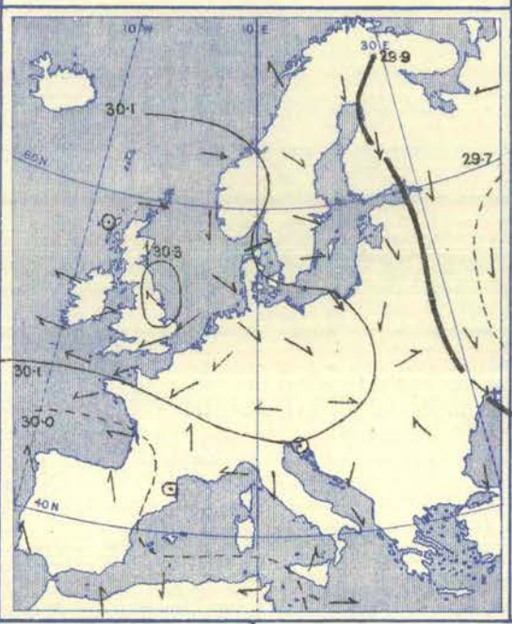
## Sunday, 13th August.

### Temperature and Weather.

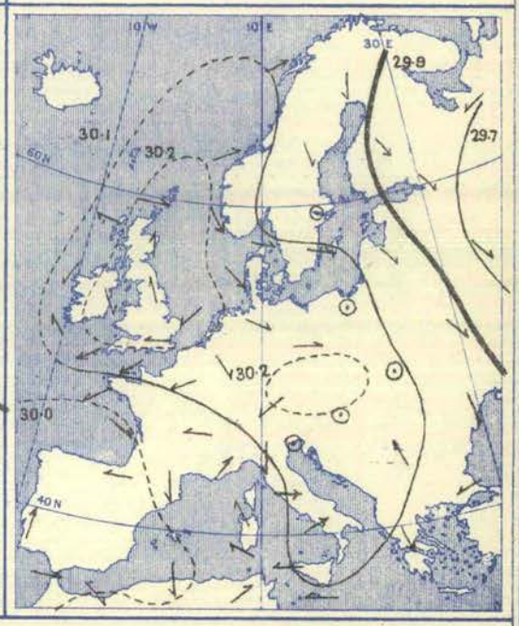
8 a.m.

### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine generally over Scotland, Ireland, England and France, but hazy or foggy in places, clear over the Mediterranean, rainy in the north-west of Norway, and in many parts of central Russia. More than an inch of rain at Bodö later, and 0·2 in. at Christiansund, none in our Islands, but a little at Lisbon, and also at Lemberg; fine elsewhere.

*Temperature* highest, 81° at Algiers, 83° at Barcelona, 80° at Bilbao; exceeding 70° over the Mediterranean generally, and exceeding 60° over the greater part of France, Ireland and England. Lowest, (1) 46° at Haparanda, 52° at Archangel and Christiansund, 58° at Sumburgh Head; (2) 55° at Breslau, 56° at Warsaw, Lemberg and Kieff. Rising later to 70° at Nairn, 77° at Parsonstown, 78° in London; to 75° at Berlin, 80° at Paris, 81° at Nice, 88° at Lorient, 104° at Rochefort; to 88° at Rome and Palermo, and to 92° at La Calle and Tunis.

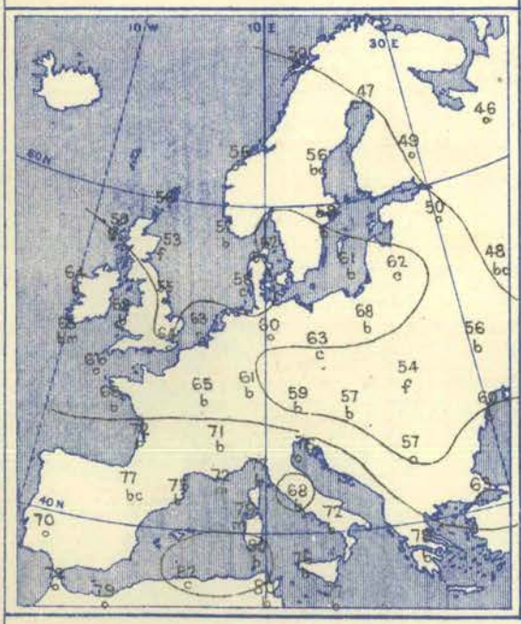
*Wind* light and anticyclonic over our Islands and their neighbourhood, as well as the Netherlands and France; Northerly to North-Westerly over Finland, central Russia, the Baltic Provinces and Sweden; variable over central Europe, the Adriatic and Mediterranean.

*Barometer* 30·3 ins. and more over the north-east of England, and exceeding 30·2 ins. all over our Islands, the north-east of France, and north-west of Germany. Lowest, 29·7 ins. and less over central Russia, and below 30·0 ins. over the Spanish Peninsula. Giving way a little over our Islands and France later, but change not important.

## Monday, 14th August.

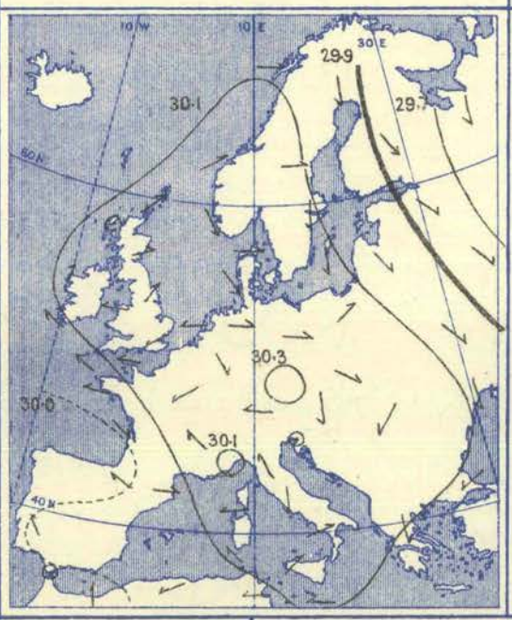
### Temperature and Weather.

8 a.m.

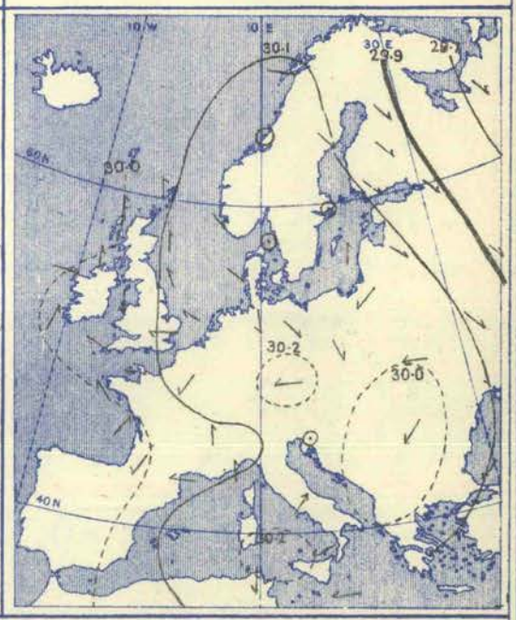


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning still fine and bright over central Europe, France and our Islands—but temporarily dull and misty in some parts of Great Britain; dull in the north of Russia, but fine in the south. Rain coming on later in parts of Scandinavia, in Ireland and the Hebrides, and also at Biarritz; thunderstorms occurring over the south-west of England and the south of France—general appearance less settled than of late.

*Temperature* highest, 82° at Algiers, 80° at La Calle and Cagliari, and above 70° over the Mediterranean, Greece and Turkey generally; above 60° over the north of France and north-west of Germany, as well as in the south and west of our Islands. Lowest, 46° at Archangel, 47° at Uleaborg, 50° at Bodö; 53° at Aberdeen, 54° at Wick, 55° at Shields; 55° to 60° over many parts of eastern Europe. Rising later to 72° at Faerder and Stornoway, to 74° at Liverpool, 76° at Parsonstown, 79° in London and at Wiesbaden, to 81° at Paris, 82° at Brussels, and 91° at Lyons.

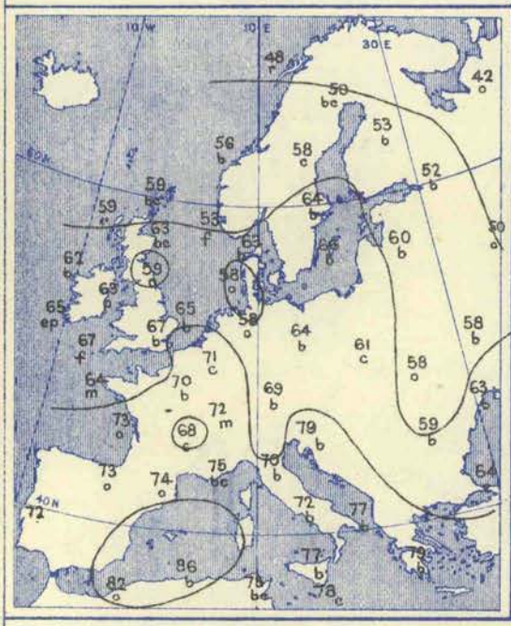
*Wind* (1) still North-Westerly over Russia, Northerly over Sweden; (2) Easterly to Southerly over our Islands and the English Channel; (3) very variable over France and central Europe; (4) cyclonic over the Mediterranean and Adriatic. Becoming much more Southerly over the western and northern parts of the British Islands, and the change spreading.

*Barometer* highest, 30·3 ins. to 30·2 ins. over central Europe, and exceeding 30·2 ins. over the North Sea and south-west of Norway. Lowest, (1) 29·7 ins. and less over the north-east of Russia; (2) 30·0 ins. and less over the southern part of the Bay of Biscay; (3) below 30·1 ins. off the west and north-west coasts of the British Islands. The Atlantic low pressure area spreading eastwards later, and appearance becoming less fair over the British Islands generally.

## Tuesday, 15th August.

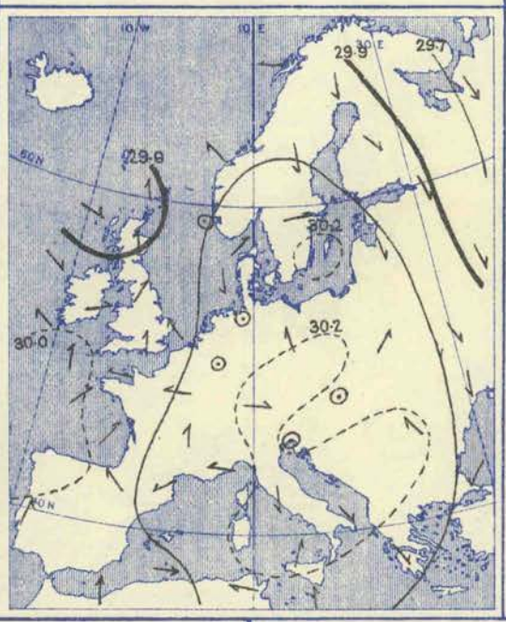
### Temperature and Weather.

#### 8 a.m.

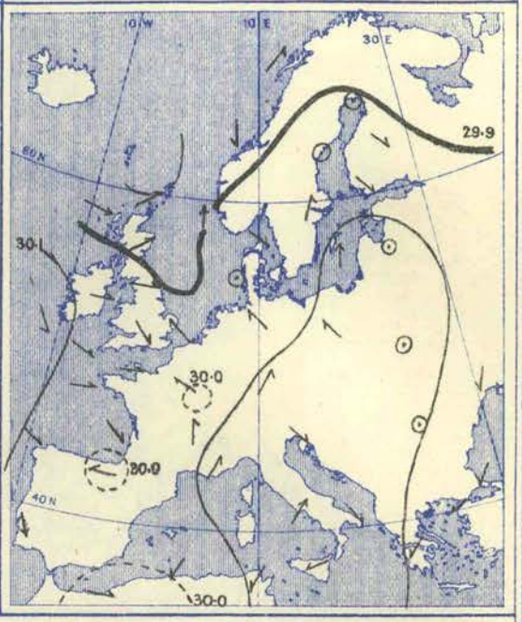


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fine over central and eastern Europe, but inclined to break up over the British Islands and France. Rain falling already at several of our north-western stations ; sky looking unsettled over our eastern Counties. Some rain later in Norway, Scotland, and the northern parts of England and Ireland, also over the Netherlands, and several parts of Germany, and at Biarritz. Thunder and lightning in many parts of France and our Islands, but thunderstorms heaviest over the central and south-western parts of England.

*Temperature* in morning highest, 86° at Algiers, 81° at Oran and Barcelona, 79° at Patras, Sanguinaire and Leghorn, and above 70° over many parts of France and at Dungeness, 67° in London and at Scilly. Lowest, 42° at Archangel, 45° at Bodö, 50° at Moscow, 52° at St. Petersburg, 59° at Sumburgh Head, Stornoway, and Shields. Rising later to 70° at Nairn, 71° at Parsonstown, 82° at Loughborough, 89° in London ; 84° at Wiesbaden and Paris, and 92° at Lyons.

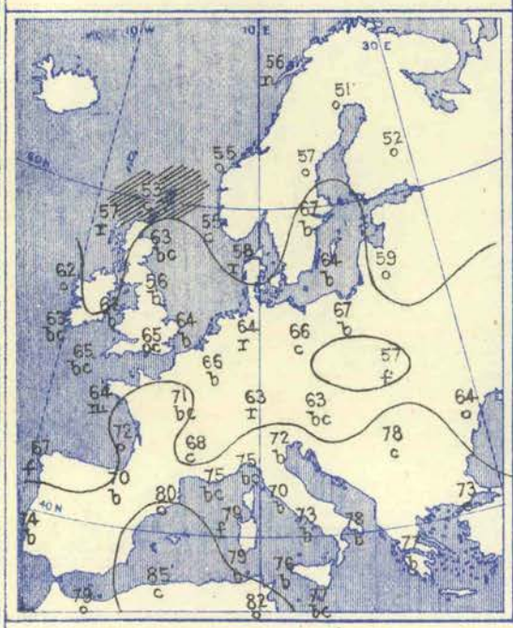
*Wind* (1) South-Easterly in the north of Norway, Southerly to Westerly in Scotland ; (2) Southerly and South-Easterly on our south-western coasts ; (3) Very variable over France and central Europe. Light generally. Becoming Westerly and North-Westerly in Scotland later, and varying exceedingly over our southern counties. A whirlwind occurring over the south-western and southern parts of London in evening.

*Barometer* highest, 30·2 ins. to 30·1 ins. over the southern and central parts of Europe, with the Baltic and southern half of Scandinavia. Lowest, below 29·9 ins. in a depression moving north-eastwards over Scotland, and below 30·0 ins. in another advancing towards the south-west of England from the south-westward. Both systems advancing north-eastwards later and undergoing great modifications in form.

## Wednesday, 16th August.

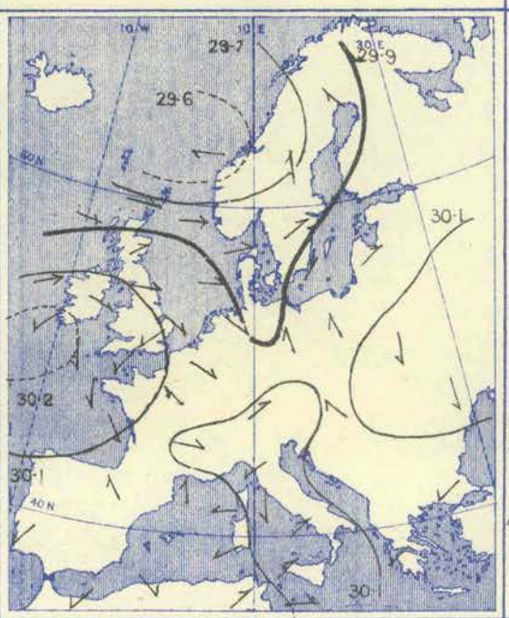
### Temperature and Weather.

#### 8 a.m.

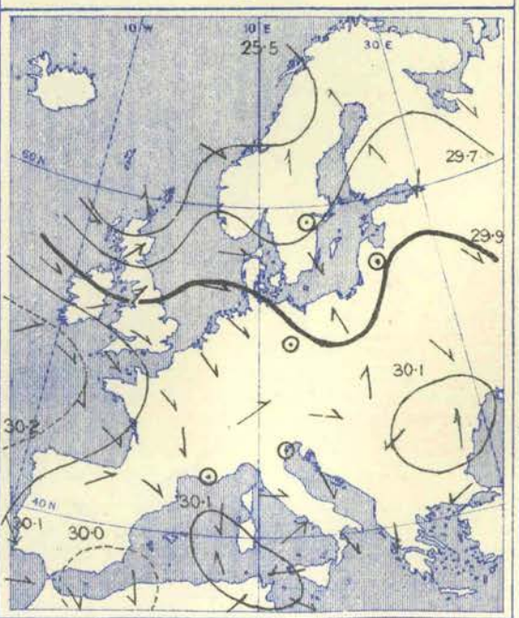


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fine over the Continent and the greater part of the British Islands, but rainy at the Danish stations and also at Stornoway. Considerable rain later both in the north of Scotland and the south of Norway, and smaller quantities over Scandinavia and the north-west and north of our Islands generally. Some fall also over the southern parts of France and in parts of Germany.

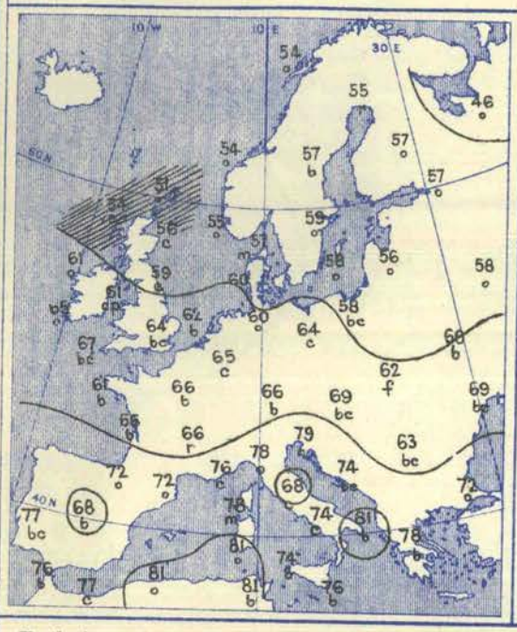
*Temperature* highest, 85° at Algiers, 80° at Barcelona, and much above 70° over many parts of the Mediterranean, the Adriatic and south-eastern Europe ; 60° and more over the southern parts of our Islands, north Germany and the south of Sweden. Lowest, (1) 51° at Uleaborg, 52° at Kuopio, 53° at Sumburgh Head, 57° at Stornoway ; (2) 57° at Lemburg, 58° at Breslau. Rising later to 67° at Nairn and Parsonstown, to 72° at Loughborough, and 79° in London, to 82° at Berlin, 85° at Paris and Belfort.

*Wind* (1) Westerly over Scotland and the south of Norway, Southerly in Sweden, South-Easterly to Easterly in Lapland ; (2) light and anticyclonic over Ireland, England, the Bay of Biscay and France ; (3) very variable over Germany. Becoming strong to a strong gale from the Westward in Scotland later, and attaining the force of a whole gale at Aberdeen.

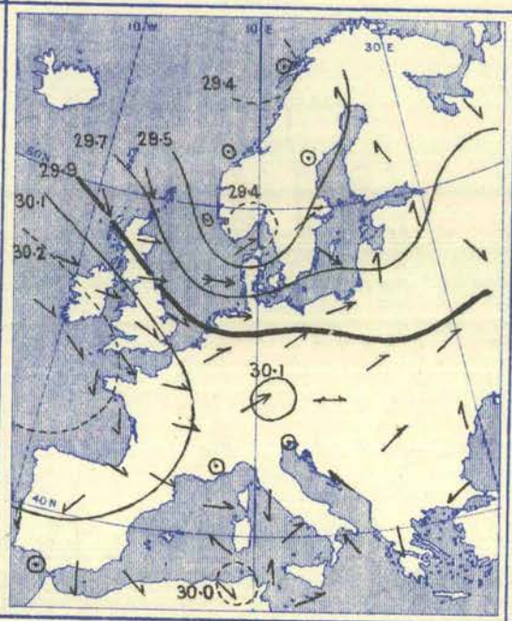
*Barometer* highest, (1) 30·23 ins. at Valencia, and exceeding 30·1 ins. over the greater part of Ireland, England and Brittany ; (2) exceeding 30·1 ins. over the southern parts of France, and also over Hungary and the south of Russia. Falling fast in Scotland later, as a small, but well-marked depression swept rapidly along the northern coast on its way to Norway.

## Thursday, 17th August.

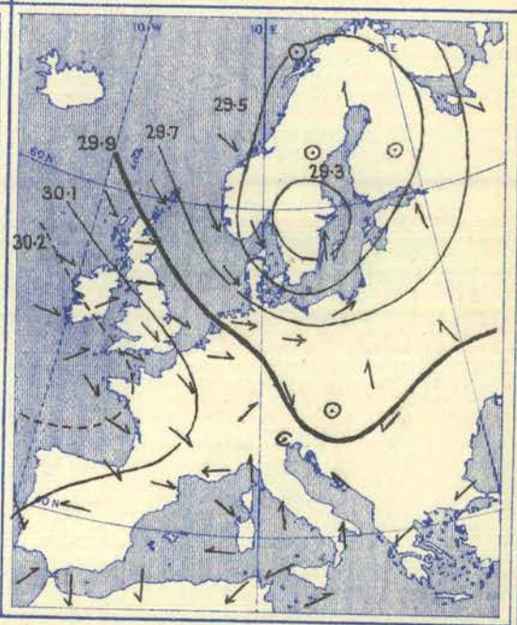
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning rough and squally over Scotland, the north-east of England, and the eastern shores of the North Sea, fair over England and Ireland, fine and bright over France. Continuing rough on our north-east coasts and over the North Sea all day, and becoming unsettled over the Baltic and Sweden, continuing fine over the greater part of France, but thunderstorms and some rain in the southern Departments.

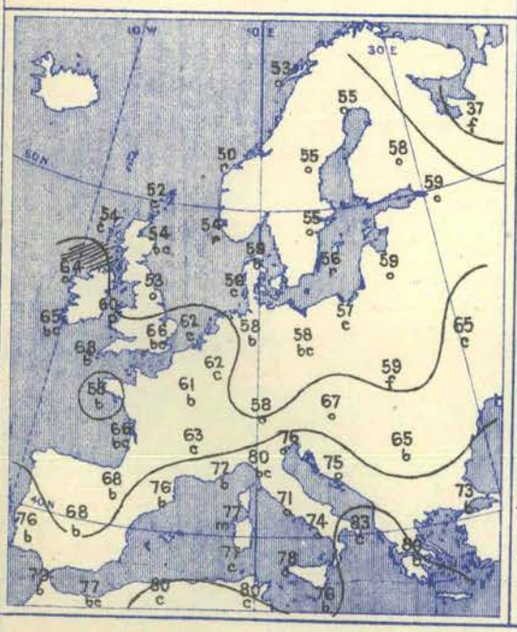
*Temperature* fallen over Scandinavia and Scotland, not much changed elsewhere, but air drier than of late over England and the south of Ireland. Morning readings highest, 81° at Algiers, Sfax, Cagliari, and Brindisi, 79° at Toulon and Trieste; considerably above 60° over France and the south and south-west of our Islands. Lowest, 46° at Archangel, 54° in the north-west of Norway 51° at Sumburgh Head, 54° at Stornoway, 55° at Skudesnaes and Karlstad. Rising later to 70° at Loughborough, 75° in London and at Dungeness, 72° at Berlin, 78° at Paris, 82° at Lyons, 84° at Perpignan.

*Wind* strong from North-West over North Britain, a gale from West at Fanö, an increasing wind from South-West over the Baltic, and from South-East at the northern extremity of the Gulf of Bothnia. Becoming still rougher and veering to North-West on the eastern shores of the North Sea later, and a gale setting in over the Baltic.

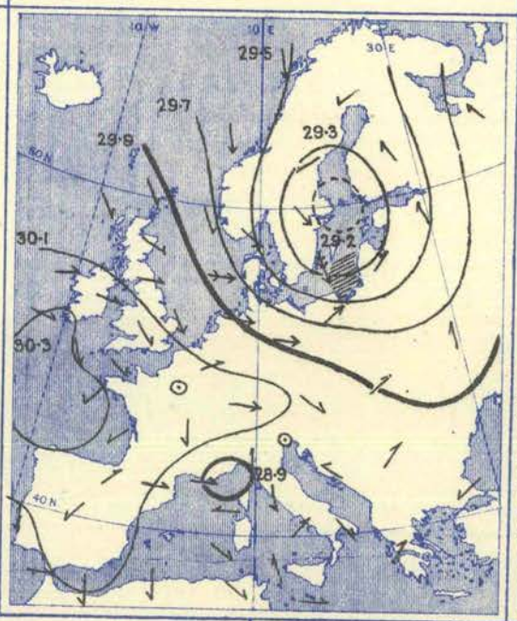
*Barometer* in morning highest, 30·2 ins. and more over the south-west of our Islands and over Brittany. Lowest, 29·4 ins. and less in a depression over the south of Norway, and below 30·0 ins. over the north of the Adriatic. Rising later over our Islands and Norway. Depression deepening and travelling towards Sweden and the Baltic.

## Friday, 18th August.

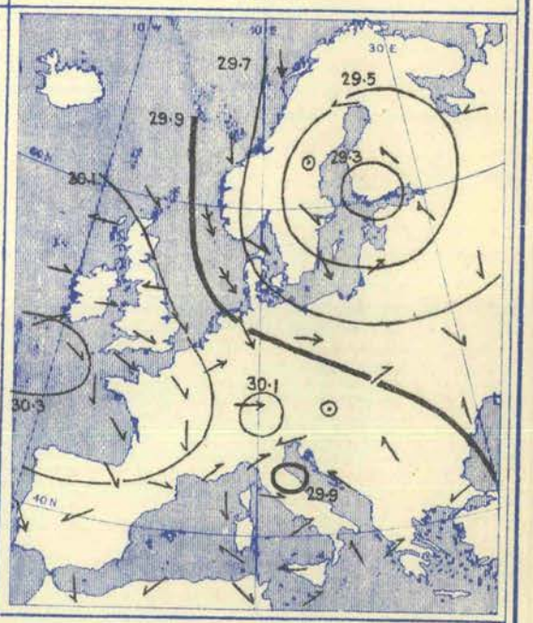
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the greater part of France and the south-western and southern parts of England; dull over central and northern Europe, with rain at times, squally and not settled on our own north and east coasts. Rain later over Germany, the Baltic, Sweden and the north-western parts of our Islands, but amounts considerable only at stations lying to the eastward of the North Sea.

*Temperature* highest, 82° at Brindisi, 80° at Patras, La Calle and Algiers, and at Leghorn; above 70° over the Mediterranean generally, above 60° over France and the south and west of our Islands. Lowest, 50° at Christiansund, 53° at Shields, 52° at Sumburgh Head, 54° at Stornoway and Aberdeen. Rising later to 67° at Nairn, 72° at Parsonstown, 74° in London, 78° at Paris, 82° at Nice, 89° at Perpignan.

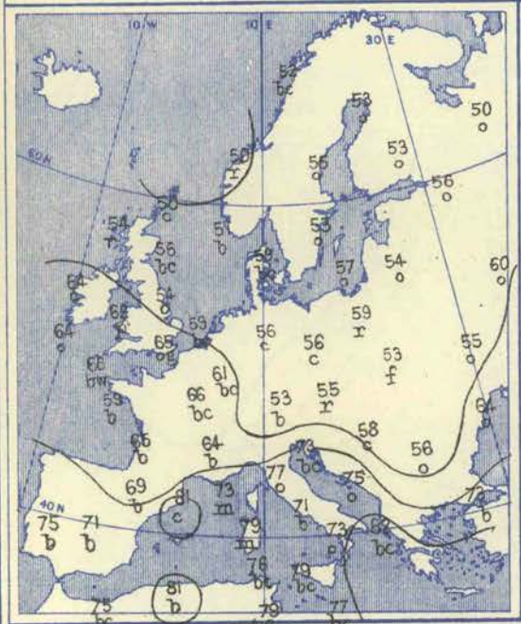
*Wind* (1) Westerly to North-Westerly over our Islands—light at the west and southern stations, strong in the North and East; (2) strong from the Northward over Scandinavia (a gale at Wisby), strong to a gale over Holstein; strong from West over the Baltic Provinces. Southerly to South-Easterly (light) over Finland, North-Easterly at Haparanda. Very variable and cyclonic over the Riviera.

*Barometer* highest, 30·3 ins. to 30·2 ins. over the south-western parts of the British Isles and over France, and also in a ridge spreading south-eastwards to south Germany. Lowest, 29·2 ins. and less in a depression over the southern parts of the Gulf of Finland, and below 29·9 ins. over the north-eastern part of the Mediterranean. Rising somewhat in our Islands later—most in the north.

## Saturday, 19th August.

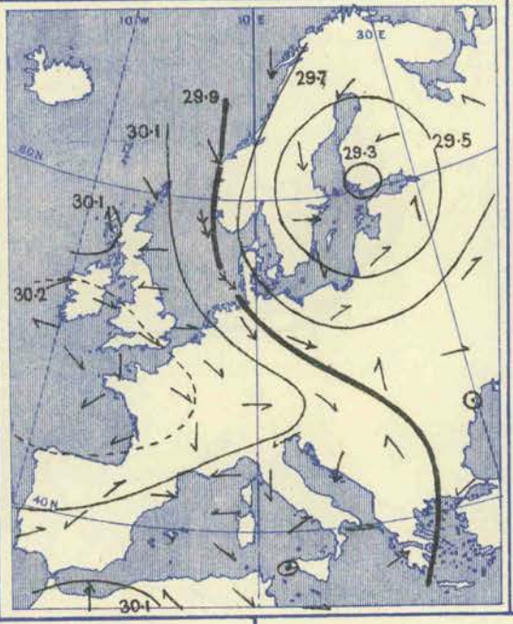
### Temperature and Weather.

#### 8 a.m.

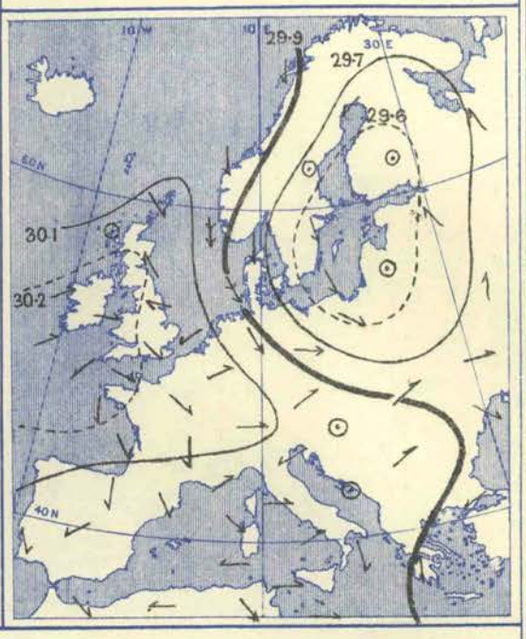


### Barometer and Wind.

#### 8 a.m.




#### 6 p.m.




*Weather* in morning fine over western Germany, France, and the south-western parts of the British Islands, cloudy in the north and east of our Islands, with very slight rain in places. Dull, overcast and threatening in many of the latter districts later, slight rain sporadically, but a larger amount in Norway, and a little in north Germany.

*Temperature* in morning highest, 81° at Algiers and Barcelona, 80° at Patras, and above 70° over the Mediterranean generally; above 60° over the northern parts of France, and the southern, central, and western parts of our Islands. Lowest, 50° at Archangel, Christiansund and Sumburgh Head, 52° at Wick, 53° at Stockholm, 54° at Stornoway and Shields, 55° in south Germany. Rising later to 63° at Nairn, 73° at Parsonstown, 74° in London, 92° at Paris.

*Wind* very light and variable (anticyclonic) in our Islands and France, stronger and cyclonic over the countries lying to the eastward of the North Sea, North-Easterly over northern Europe, North-Westerly to Westerly over the south of Sweden, and north Germany. Very variable over the Mediterranean.

*Barometer* highest, 30·31 ins. at Roches Point, and exceeding 30·2 ins. over the greater part of Ireland, England, and France. Lowest, 29·3 ins. and less in a depression over the south of Finland, and below 30·0 ins. over the eastern parts of the Mediterranean, and over south-eastern Europe. No decided change in our Islands later.

### GENERAL NOTES.

At the beginning of this week an anticyclone of irregular form (in which readings were above 30·2 ins.) was covering the eastern parts of our Islands and adjacent parts of the North Sea, as well as central Europe. Light Easterly to Southerly winds were prevalent over France and the United Kingdom, while North-Westerly winds were blowing over Finland and Russia, and very variable airs over France and the Mediterranean.

Gradually this system moved eastwards, and winds from a more southerly point became general over Europe. On Tuesday a well-formed depression appeared off our north-west coasts and another off the south-west of Ireland, and during the day temperature rose with unusual rapidity over western Europe, the maxima being as high as 89° in London, 84° at Paris, and 92° at Nice. The air in London was most oppressive, and a few hours later thunderstorms were experienced over the United Kingdom, their violence being greatest over our inland south-western and midland counties.

The northern depression moved north-eastwards, the south-western one broke up as it travelled, but on Wednesday night a new depression (secondary to the one named above) came swiftly over our most northern districts, and these increased in area as the disturbance grew deeper and advanced to the Baltic. Under the influence of this disturbance and some shallow secondaries which followed it, further showers fell daily in the north till nearly the close of the week, and on Saturday some spots were felt even in London. Late on Saturday the weather was clearing over England, and apparently another fine warm period was imminent.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 194.

| Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 34·7 | ? | 33 | ? | WATERGATE (Emsworth) | 64·5 | ? | 65 | ? |
| STRATHPEFFER SPA | 40·3 | +14·4 | 38 | +14 | BRIGHTON | 79·1 | | 79 | |
| EDINBURGH | 28·6 | - 5·2 | 28 | - 4 | WORTHING | 66·7 | ? | 67 | ? |
| MORPETH | 38·0 | ? | 37 | ? | BOGNOR | 69·1* | ? | 69* | ? |
| NEWCASTLE-ON-TYNE | 25·8 | ? | 25 | ? | EASTBOURNE | 54·4 | + 9·4 | 54 | +10 |
| OSWALDKIRK (Yorkshire) | 24·6 | - 6·4 | 24 | - 5 | VENTNOR HOSPITAL | 72·5 | ? | 73 | ? |
| LOWESTOFT | 31·5 | ? | 31 | ? | SOUTHPORT | 40·3 | ? | 39 | ? |
| HOLLESLEY BAY | 36·9 | ? | 36 | ? | COLWYN BAY | 49·4 | ? | 48 | ? |
| SHEFFIELD | 33·3 | ? | 33 | ? | ABERDOVEY | 61·9* | ? | 61* | ? |
| WORKSOP | 33·3 | + 1·0 | 33 | + 2 | TENBY | 82·3 | +40·3 | 81 | +39 |
| THURCASTON (Leicestershire) | 43·8 | + 7·6 | 43 | + 8 | NEWQUAY | 74·2 | +28·9 | 74 | +29 |
| MARGATE | 43·5 | + 1·5 | 44 | + 3 | TORQUAY | 74·6 | +28·8 | 75 | +30 |
| WESTBOURNE (Emsworth) | 71·1* | +25·1 | 71* | +26 | GUERNSEY | 82·9* | +29·3 | 84* | +31 |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| Date of Report. | Name of Stations. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week ending July 1st, 1899 | Edinburgh | — | — | — | — | — | — | — | — | — | — | — | 21·7 | - 12·8 | 18 | - 10 |
| " " " " " | Colwyn Bay | — | — | — | — | — | — | — | — | — | — | — | 19·1 | — | 16 | — |
| " " " " " | Newquay | — | — | — | — | — | — | — | — | — | — | — | 31 | - 21·5 | 28 | - 18 |
| " " " 8th, " | Fort Augustus | 74 | 52 | 65·8 | 53·2 | 59·1 | + 2·6 | 120 | 0 | 3 | 0·55 | - 0·12 | 22·6 | - 5·4 | 19 | — |
| " " " " " | Oswaldkirk | — | — | — | — | — | — | — | — | — | — | — | 43·3 | + 8·5 | 37 | — |
| " " " " " | Newquay | — | — | — | — | — | — | — | — | — | — | — | 28·5 | - 21·3 | 26 | - 15 |
| " " " 22nd, " | Lairg | 75 | 41 | 67·7 | 47·6 | 57·0 | + 2·8 | 105 | 0 | 3 | 0·30 | - 0·43 | — | — | — | — |

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. No. 34.] *Third Series.* WEEK ENDING SATURDAY, AUGUST 26TH, 1899. [*Price 6d.* *Annual Subscription post paid* £1 10s. 0d.

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 200.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 83 | 40 | 71·3 | 53·9 | 62·1 | 8 above | 141 | +56 | 0 | 0 | 1638 | +306 | 617 | − 6 |
| | 1. SCOTLAND, EAST | 86 | 42 | 75·2 | 51·9 | 62·8 | 7 above | 146 | +46 | 0 | 0 | 1833 | +196 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 82 | 47 | 71·7 | 53·9 | 62·3 | 5 above | 142 | +32 | 0 | 0 | 2044 | +316 | 456 | − 93 |
| | 3. ENGLAND, EAST | 90 | 43 | 74·4 | 53·7 | 63·4 | 4 above | 150 | +29 | 0 | 0 | 2365 | +343 | 421 | −196 |
| | 4. MIDLAND COUNTIES | 89 | 44 | 80·6 | 51·9 | 65·4 | 7 above | 164 | +46 | 0 | 0 | 2404 | +376 | 478 | −141 |
| | 5. ENGLAND, SOUTH | 90 | 45 | 76·5 | 56·4 | 65·9 | 5 above | 167 | +36 | 0 | 0 | 2662* | +480 | 294 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 80 | 44 | 74·7 | 53·6 | 63·5 | 7 above | 151 | +50 | 0 | 0 | 1960 | +245 | 413 | − 49 |
| | 7. ENGLAND, N.W. | 87 | 52 | 76·8 | 56·9 | 66·2 | 8 above | 169 | +56 | 0 | 0 | 2235 | +385 | 313 | −146 |
| | 8. ENGLAND, S.W. | 90 | 45 | 75·9 | 55·7 | 65·2 | 6 above | 162 | +44 | 0 | 0 | 2550 | +496 | 240 | −121 |
| | 9. IRELAND, NORTH | 84 | 46 | 74·2 | 55·7 | 64·4 | 8 above | 157 | +52 | 0 | 0 | 2113 | +292 | 323 | − 72 |
| | 10. IRELAND, SOUTH | 80 | 46 | 73·7 | 56·0 | 64·3 | 6 above | 156 | +42 | 0 | 0 | 2472 | +412 | 245 | − 54 |
| | —CHANNEL ISLANDS | 85 | 58 | 75·4 | 61·3 | 68·0 | 7 above | 182 | +49 | 0 | 0 | 2961 | +665 | 81 | − 67 |

### Rainfall. / Bright Sunshine.

| | DISTRICTS. (See p. 200.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 1 | 2 | 8 less | 134 | −19 | 26·5 | − 2·5 | 50 | +33 | 50 | +33 | 983 | +143 | 30 | + 4 |
| | 1. SCOTLAND, EAST | 1 | 1 | 6 less | 123 | − 3 | 19·8 | + 0·4 | 55 | +23 | 54 | +23 | 1047 | + 80 | 33 | + 3 |
| | 2. ENGLAND, N.E. | 0 | — | 5 less | 112 | − 5 | 14·4 | − 1·5 | 53 | +24 | 54 | +25 | 1005 | + 69 | 33 | + 3 |
| | 3. ENGLAND, EAST | 0 | — | 5 less | 99 | −15 | 12·7 | − 3·0 | 76 | +37 | 77 | +38 | 1405 | +228 | 44 | + 8 |
| | 4. MIDLAND COUNTIES | 0 | less than ½ | 6 less | 97 | −15 | 15·0 | − 2·2 | 71 | +38 | 73 | +40 | 1253* | +271 | 41 | + 8 |
| | 5. ENGLAND, SOUTH | 0 | — | 5 less | 83 | −24 | 12·8 | − 4·2 | 81 | +37 | 83 | +39 | 1510* | +307 | 48 | +10 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 1 | 1 | 9 less | 132 | 0 | 29·2 | − 0·4 | 59 | +26 | 59 | +27 | 1058* | + 35 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 1 | 1 | 7 less | 119 | − 2 | 20·7 | + 0·6 | 68 | +26 | 69 | +37 | 1236 | +216 | 39 | + 6 |
| | 8. ENGLAND, S.W. | 1 | 1 | 7 less | 106 | −16 | 22·9 | − 0·2 | 78 | +35 | 80 | +37 | 1479* | +245 | 47 | + 7 |
| | 9. IRELAND, NORTH | 2 | 3 | 5 less | 139 | − 4 | 22·0 | − 0·6 | 62 | +34 | 63 | +35 | 1080 | +137 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 2 | 8 | 0 (average) | 117 | −13 | 26·2 | + 2·2 | 63 | +31 | 64 | +31 | 1224 | +160 | 39 | + 5 |
| | — CHANNEL ISLANDS | 1 | 2 | 3 less | 100 | −28 | 16·0 | − 2·7 | 82 | +31 | 85 | +32 | 1621 | +277 | 55 | + 9 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* continued very fine and dry until towards the end of the week, when rain was experienced over Scotland, Ireland, and the extreme west and south-west of England. At the Scotch stations the rain was accompanied by much thunder and lightning.

*Temperature* continued above the mean in all districts, the excess ranging from 4° in England E., and 5° in England N.E. and S., to as much as 7° in Scotland E. and W., the Midland counties and the Channel Islands, and to 8° in Scotland N., Ireland N., and England N.W. The highest of the maxima were recorded on the 25th over England, but earlier in the week in most parts of Ireland and Scotland; they ranged from 90° in England E., S., and S.W. (at Cambridge, in London and at Llandovery) and 89° in the Midland Counties to 82° in England N.E., and 80° in Scotland W., and Ireland S. The lowest of the minima, which were registered, as a rule, on the 22nd, ranged from 40° in Scotland N. to 52° in England N.W. and to 58° in the Channel Islands.

*Rainfall* was again almost entirely absent from England, and much less than the mean in all parts of the Kingdom excepting Ireland S. In this district the fall was equal to the normal, owing chiefly to a measurement of 2·22 ins. which fell at Valencia on the 24th and during the early morning of the 25th.

*Bright Sunshine* was much above the mean in all parts of the Kingdom, the percentage of the possible duration ranging from 85 in the Channel Islands, 83 in England S. and 80 in England S.W. to 54 in England N.E. and Scotland E., and 50 in Scotland N.

*Barometer and Wind.*—During the earlier half of the week the centre of an anticyclone lay over the United Kingdom, the winds being light from the Eastward and North-Eastward in the south, and from the Southward or South-Eastward in the west. After Wednesday, however, this system moved slowly away Eastwards and North-Eastwards, and depressions commenced to move Northwards over our extreme western and north-western coasts, with increasing Southerly and South-Westerly winds in the west and north generally.

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913 | 70 8 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 199 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 64 | 40 | 59·3 | 50·1 | 54·4 | + 2·0 | 87 | 0 | 0 | 0·01‡ | − 0·78 | * | * | * | * |
| | Stornoway | 75 | 46 | 70·7 | 53·3 | 61·5 | + 8·0 | 137 | 0 | 2 | 0·38 | − 0·48 | 62·1 | +35·7 | 61 | +36 |
| | Wick | 73 | 50 | 67·1 | 53·3 | 59·8 | + 5·8 | 125 | 0 | 1 | 0·03 | − 0·59 | * | * | * | * |
| | Lairg Ⓢ | 81 | 56 | 76·5 | 58·6 | 67·0 | +12·3 | 175 | 0 | 1 | 0·27 | − 0·31 | * | * | * | * |
| | Glencarron Ⓢ | 81 | 49 | 74·4 | 53·0 | 63·1 | + 8·8 | 148 | 0 | 1 | 0·37 | − 1·17 | * | * | * | * |
| | Fort Augustus Ⓢ | 83 | 47 | 76·8 | 53·8 | 64·6 | + 8·4 | 158 | 0 | 1 | 0·01 | − 0·76 | 48·9 | +31·9 | 48 | +32 |
| | Fort William Ⓢ | 81 | 50 | 74·4 | 54·9 | 64·1 | + 7·6 | 155 | 0 | 1 | 0·11 | − 1·27 | 53·5 | +33·9 | 53 | +34 |
| 1. SCOTLAND E. | Nairn | 86 | 46 | 77·7 | 50·1 | 63·1 | + 7·2 | 148 | 0 | 1 | 0·10 | − 0·48 | * | * | * | * |
| | Aberdeen | 72 | 48 | 66·6 | 51·7 | 58·7 | + 3·0 | 117 | 0 | 1 | 0·01 | − 0·64 | 43·2 | + 9·2 | 43 | +10 |
| | Braemar Ⓢ | 80 | 42 | 75·3 | 49·6 | 61·7 | + 9·1 | 138 | 0 | 1 | 0·13 | − 0·77 | 60·0† | +34·3† | 59† | +34† |
| | Ochtertyre Ⓢ | 84 | 49 | 79·3 | 53·3 | 65·5 | + 9·2 | 165 | 0 | 1 | 0·55 | − 0·27 | * | * | * | * |
| | Leith Ⓢ | 81 | 50 | 75·9 | 53·9 | 64·2 | + 6·5 | 155 | 0 | 1 | 0·02 | − 0·53 | * | * | * | * |
| | Marchmont Ⓢ | 80 | 49 | 76·4 | 52·6 | 63·8 | + 8·4 | 153 | 0 | 0 | — | − 0·75 | 59·3 | +25·1 | 59 | +26 |
| 2. ENGLAND, N.E. | Alnwick Castle | 82 | 47 | 73·5 | 51·1 | 61·6 | + 5·7 | 137 | 0 | 0 | — | − 0·65 | * | * | * | * |
| | Durham | 82 | 51 | 76·8 | 53·1 | 64·2 | + 6·8 | 155 | 0 | 0 | 0·01‡ | − 0·54 | 53·0 | +20·5 | 53 | +21 |
| | Shields | 75 | 53 | 69·3 | 54·7 | 61·6 | + 4·4 | 137 | 0 | 0 | — | − 0·60 | * | * | * | * |
| | Scarborough Ⓜ | 79 | 50 | 71·9 | 54·3 | 62·6 | + 4·9 | 144 | 0 | 0 | — | − 0·53 | ? | ? | ? | ? |
| | Spurn Head | 69 | 54 | 66·9 | 56·4 | 61·3 | + 2·5 | 135 | 0 | 0 | — | − 0·38 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 85 | 46 | 77·7 | 52·9 | 64·6 | + 5·3 | 158 | 0 | 1 | 0·05 | − 0·53 | 78·1 | +39·4 | 80 | +41 |
| | Yarmouth | 70 | 51 | 66·4 | 56·3 | 61·1 | + 1·4 | 134 | 0 | 0 | — | − 0·50 | * | * | * | * |
| | Geldeston | 80 | 45 | 72·2 | 51·4 | 61·2 | + 1·8 | 134 | 0 | 0 | — | − 0·45 | 76·3 | +34·4 | 78 | +36 |
| | Cambridge | 90 | 45 | 81·5 | 53·7 | 66·8 | + 6·8 | 174 | 0 | 0 | — | − 0·50 | 78·0 | +37·7 | 80 | +40 |
| | Felixstowe | 78 | 48 | 70·7 | 56·0 | 62·9 | + 3·6 | 146 | 0 | 0 | — | ? | 77·3† | ? | 79† | ? |
| | Rothamsted | 86 | 43 | 77·8 | 51·8 | 64·0 | + 5·1 | 154 | 0 | 0 | 0·01‡ | − 0·53 | 76·0 | +34·5 | 78 | +36 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 89 | 48 | 81·9 | 52·1 | 66·1 | + 7·5 | 169 | 0 | 0 | — | − 0·49 | * | * | * | * |
| | Loughborough | 89 | 44 | 82·6 | 50·7 | 65·7 | + 5·9 | 166 | 0 | 0 | — | − 0·53 | * | * | * | * |
| | Stamford (Duddington) | 89 | 44 | 81·1 | 51·6 | 65·5 | + 5·6 | 165 | 0 | 0 | — | − 0·50 | * | * | * | * |
| | Cheadle Ⓜ | 86 | 53 | 79·3 | 54·6 | 66·2 | + 9·6 | 169 | 0 | 1 | 0·24 | − 0·56 | * | * | * | * |
| | Shirley (near Solihull) | 86 | 46 | 79·8 | 50·2 | 64·1 | + 4·9 | 155 | 0 | 0 | — | ? | * | * | * | * |
| | Churchstoke Ⓜ | 86 | 49 | 80·3 | 53·0 | 66·1 | + 9·2 | 169 | 0 | 0 | — | − 0·60 | 75·3 | +38·3 | 77 | +40 |
| | Hereford (Belmont) Ⓜ | 86 | 46 | 80·4 | 50·0 | 64·3 | + 4·9 | 156 | 0 | 1 | 0·02 | − 0·52 | * | * | * | * |
| | Cirencester | 86 | 50 | 79·8 | 52·7 | 65·4 | + 7·8 | 164 | 0 | 0 | — | − 0·65 | 78·9 | +39·1 | 81 | +41 |
| | Oxford | 85 | 48 | 80·1 | 52·4 | 65·4 | + 5·4 | 164 | 0 | 0 | — | − 0·50 | | | | |
| 5. ENGLAND, S. | London | 90 | 48 | 82·3 | 55·3 | 68·0 | + 6·7 | 182 | 0 | 0 | — | − 0·50 | 68·8† | +31·6† | 70† | +33† |
| | Cranley Ⓜ | 83 | 45 | 80·4 | 53·2 | 66·0 | + 5·1 | 168 | 0 | 0 | — | ? | * | * | * | * |
| | Dungeness | 78 | 51 | 72·4 | 50·9 | 65·8 | + 4·6 | 167 | 0 | 0 | — | − 0·47 | * | * | * | * |
| | Hastings (St. Leonards) | 80 | 50 | 74·2 | 57·4 | 65·3 | + 4·6 | 163 | 0 | 0 | — | − 0·50 | 82·7 | +37·3 | 84 | +39 |
| | Southampton | 81 | 51 | 79·1 | 56·5 | 67·1 | + 6·1 | 176 | 0 | 0 | — | − 0·55 | 80·9 | +35·1 | 83 | +37 |
| | Portland Bill | 72 | 53 | 70·7 | 57·3 | 63·6 | + 3·0 | 151 | 0 | 0 | — | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 80 | 51 | 76·6 | 55·4 | 65·4 | + 6·0 | 164 | 0 | 0 | — | − 0·34 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 79 | 52 | 75·0 | 57·5 | 65·7 | + 9·2 | 166 | 0 | 2 | 0·19 | − 1·03 | * | * | * | * |
| | Glasgow | 80 | 52 | 75·5 | 56·6 | 65·5 | + 9·3 | 165 | 0 | 1 | 0·02 | − 0·88 | 52·0 | +23·0 | 51 | +23 |
| | Glenlee Ⓢ | 79 | 44 | 76·4 | 48·0 | 61·4 | + 5·5 | 136 | 0 | 0 | — | − 1·02 | * | * | * | * |
| | Douglas (Isle of Man) | 74 | 48 | 72·0 | 52·1 | 61·5 | + 5·1 | 137 | 0 | 2 | 0·26 | − 0·62 | 66·2 | +29·2 | 67 | +31 |
| 7. ENGLAND, N.W. | Stonyhurst | 80 | 54 | 75·7 | 55·7 | 65·1 | + 7·8 | 162 | 0 | 1 | 0·09 | − 1·08 | 62·3 | +30·3 | 63 | +32 |
| | Blackpool Ⓜ | 85 | 52 | 76·9 | 54·2 | 64·9 | + 5·2 | 160 | 0 | 1 | 0·02 | − 0·70 | 71·2 | +37·3 | 72 | +39 |
| | Manchester (Prestwich) | 87 | 53 | 79·9 | 55·3 | 66·9 | + 9·1 | 174 | 0 | 1 | 0·05 | − 0·75 | 55·1 | ? | 56 | ? |
| | Liverpool Obsy. (Bidston) | 85 | 58 | 77·4 | 58·1 | 67·2 | + 8·0 | 176 | 0 | 1 | 0·03 | − 0·57 | 70·4 | ? | 72 | ? |
| | Llandudno Ⓜ | 86 | 58 | 79·2 | 60·0 | 69·0 | + 9·4 | 189 | 0 | 1 | 0·07 | − 0·51 | 73·2 | +39·3 | 75 | +41 |
| | Holyhead | 76 | 56 | 71·4 | 57·9 | 64·3 | + 5·6 | 156 | 0 | 2 | 0·12 | − 0·57 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 90 | 45 | 83·9 | 50·7 | 66·3 | + 7·9 | 170 | 0 | 1 | 0·05 | − 0·97 | * | * | * | * |
| | Pembroke | 74 | 58 | 69·9 | 59·6 | 64·4 | + 5·7 | 157 | 0 | 2 | 0·29 | − 0·33 | 76·3 | +34·1 | 78 | +36 |
| | Clifton | | | | | | | | | | | | * | * | * | * |
| | Arlington (N. Devon) | 82 | 49 | 78·7 | 55·9 | 66·6 | + 8·7 | 172 | 0 | 1 | 0·21 | − 0·90 | * | * | * | * |
| | Cullompton Ⓜ | 81 | 48 | 79·1 | 51·6 | 64·5 | + 4·8 | 158 | 0 | 1 | 0·03 | − 0·57 | 78·1 | +38·0 | 80 | +39 |
| | Falmouth | 73 | 56 | 69·9 | 58·9 | 64·1 | + 4·5 | 155 | 0 | 2 | 0·23 | − 0·60 | 76·7 | +30·9 | 79 | +33 |
| | Plymouth | 78 | 52 | 73·8 | 57·5 | 65·2 | + 4·5 | 162 | 0 | 1 | 0·04 | − 0·56 | 77·8 | +35·8 | 80 | +38 |
| 9. IRELAND, N. | Malin Head | 78 | 56 | 72·6 | 59·4 | 65·6 | + 8·4 | 165 | 0 | 2 | 0·08 | ? | * | * | * | * |
| | Londonderry | 84 | 53 | 79·5 | 56·3 | 67·3 | +10·0 | 177 | 0 | 2 | 0·18 | − 0·64 | * | * | * | * |
| | Edenfel (Omagh) | 81 | 48 | 75·9 | 53·4 | 64·0 | + 8·2 | 154 | 0 | 2 | 0·47 | − 0·33 | * | * | * | * |
| | Belmullet | 78 | 55 | 72·1 | 58·0 | 64·6 | + 6·9 | 158 | 0 | 3 | 1·12 | + 0·14 | * | * | * | * |
| | Markree Castle | 79 | 46 | 75·7 | 53·6 | 64·0 | + 7·9 | 154 | 0 | 2 | 0·15 | − 0·75 | 55·1 | +27·3 | 56 | +28 |
| | Armagh | 80 | 49 | 75·4 | 54·4 | 64·3 | + 7·7 | 156 | 0 | 3 | 0·16 | − 0·52 | 69·2 | +43·2 | 70 | +44 |
| | Donaghadee | 71 | 52 | 68·4 | 54·6 | 61·1 | + 4·3 | 134 | 0 | 2 | 0·23 | − 0·48 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 78 | 54 | 73·3 | 57·6 | 65·0 | + 6·5 | 161 | 0 | 1 | 0·01 | − 0·57 | 71·9 | +37·0 | 73 | +38 |
| | Parsonstown | 80 | 52 | 74·9 | 55·6 | 64·7 | + 7·3 | 159 | 0 | 2 | 0·37 | − 0·36 | 60·1 | +31·1 | 61 | +31 |
| | Kilkenny | 79 | 46 | 74·0 | 51·3 | 62·0 | + 3·6 | 140 | 0 | 2 | 0·47 | − 0·37 | * | * | * | * |
| | Roche's Point | 72 | 56 | 71·1 | 59·3 | 64·9 | + 6·1 | 160 | 0 | 2 | 0·83 | − 0·07 | * | * | * | * |
| | Valencia | 79 | 51 | 73·0 | 57·7 | 64·9 | + 6·2 | 160 | 0 | 3 | 2·79 | + 1·64 | 57·6 | +24·5 | 59 | +25 |
| | Killarney | 80 | 49 | 74·9 | 55·2 | 64·5 | + 5·9 | 158 | 0 | 3 | 0·84 | ? | * | * | * | * |
| | Foynes | 80 | 51 | ?74·5 | ?55·1 | ?64·2 | ?+ 6·1 | ?155 | 0 | 2 | 0·33 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 75 | 61 | 72·4 | 62·0 | 66·9 | + 7·2 | 174 | 0 | 2 | 0·38 | − 0·17 | 77·4 | ? | 80 | ? |
| | Jersey | 85 | 58 | 78·4 | 60·6 | 69·0 | + 6·8 | 189 | 0 | 0 | — | − 0·50 | 86·6 | +32·6 | 89 | +34 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observation made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

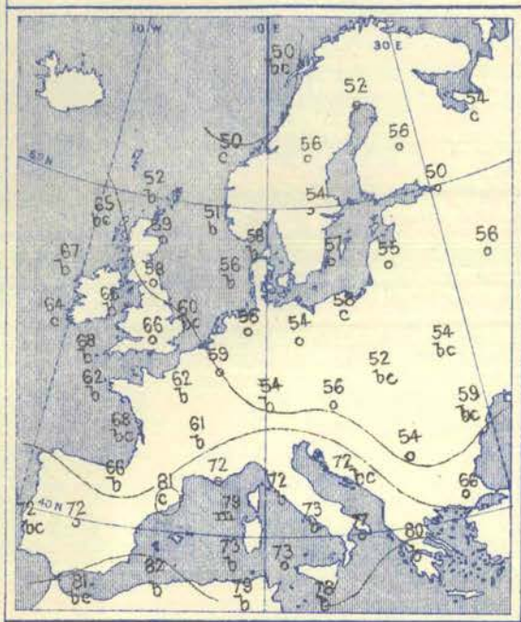
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

‡ Fog or dew.

## Sunday, 20th August.

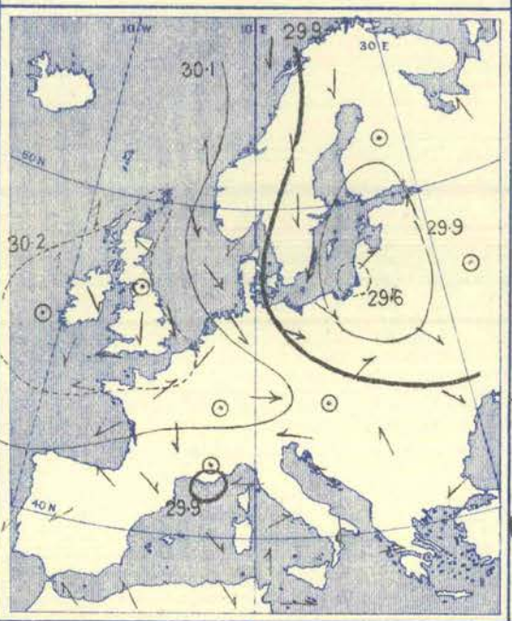
### Temperature and Weather.

8 a.m.

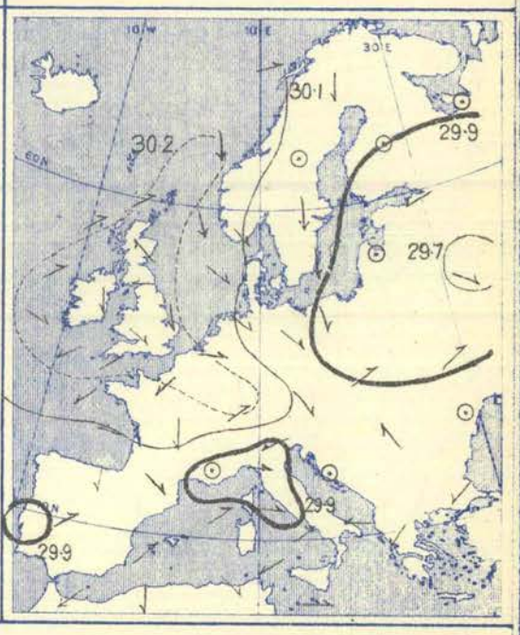


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine and bright over western and southern Europe generally, but dull on the north-east coasts of Great Britain. Cloudy or dull in Sweden, Russia, Germany, and Austria, with rain at Breslau. Sky clearing later on our own north-east coasts, but rain falling in many parts of northern and central Europe.

*Temperature* risen in most of the western and northern countries, but fallen in France, Germany, Italy, and Austria. Morning readings highest, 82° at Algiers, 81° at Barcelona and Nemours, and 80° at Athens; above 70° in most parts of southern Europe, and above 65° in the west of Ireland and the south of England. Lowest, 50° at Bodö, Christiansund, and St. Petersburg, and 51° at Skudesnaes. Rising during day to 75° and upwards in many parts of England, and to 78° at Jersey; exceeding 85° over southern Europe as a whole, and reaching 93° at Lyons, Cape Béarn and Palermo.

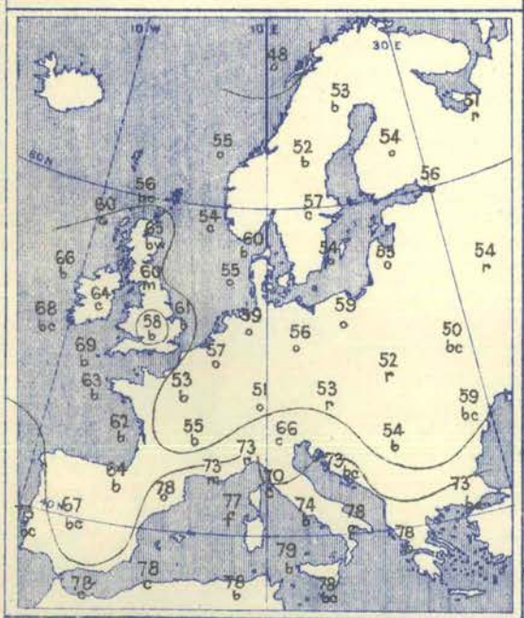
*Wind* light and variable over all the more northern parts of the United Kingdom, but Easterly or North-Easterly over the south of England and the greater part of France and Spain. Moderate to strong from the Northward or North-Westward in Scandinavia and Denmark; Westerly in Germany and also in the south of Russia; calm or variable over northern Russia; variable also in Italy and Greece. Easterly breezes setting in later on our own north-east coasts; no important change occurring elsewhere.

*Barometer* highest, 30·1 ins. to 30·2 ins. and upwards in an anticyclone lying over nearly the whole of western Europe. Lowest, 29·6 ins. and less in a well-marked, but rather shallow depression with its centre over the Baltic Provinces. Depression subsequently moving eastwards across Russia; no decided change occurring over the western countries.

## Monday, 21st August.

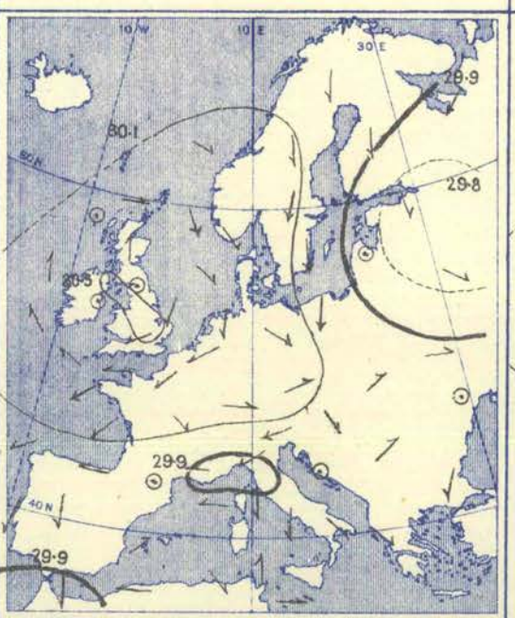
### Temperature and Weather.

8 a.m.

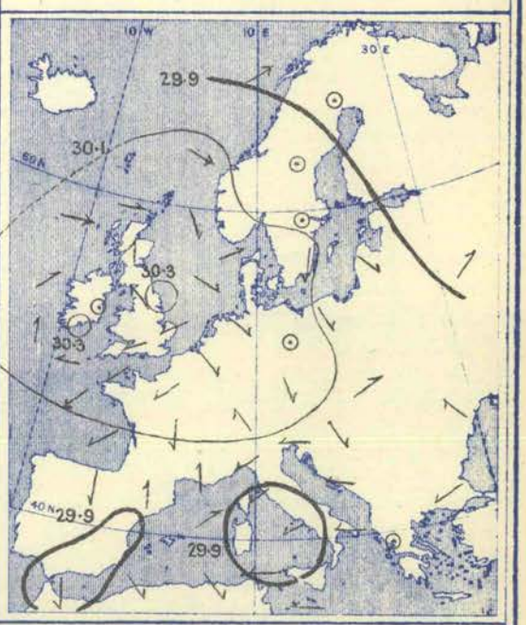


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over western and southern Europe generally, and also in Sweden and Denmark, but rainy at some stations in northern Italy, and the extreme south of France. Dull in most parts of Norway, Russia, Germany and Austria, with rain at Archangel, Moscow, Prague and Vienna. Rain falling later in the west of Norway, and also in Austria; considerable quantities reported at Rome and Naples; thunder occurring at Nice in evening.

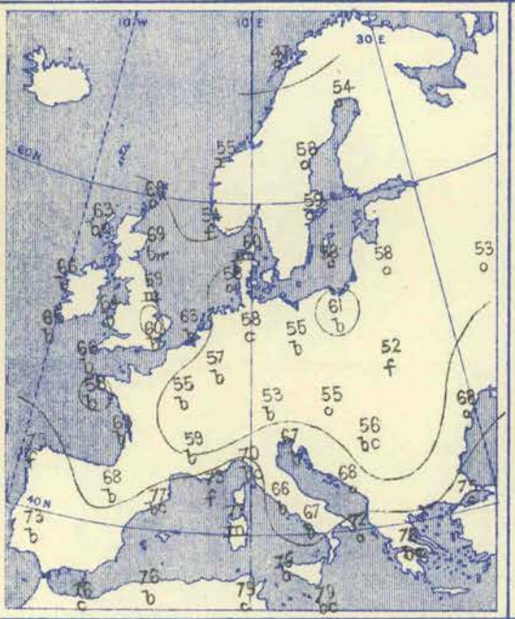
*Temperature* fallen in most countries, but risen in Scotland, and also on the eastern shores of the North Sea. Morning readings highest, 81° at Palma, and 79° at Palermo; above 75° at several of the Mediterranean stations, and above 70° over southern Europe generally. Lowest, 48° at Bodö, 50° at Kief, 51° at Archangel, and 52° at Hernösand and Lemberg. Rising during day to 75° or slightly more in many parts of the United Kingdom; exceeding 80° in the west of France, and exceeding 85° at several stations in southern Europe, the highest reading of all being 91° at Cape Béarn and Palermo.

*Wind* light to moderate from the Eastward or North-Eastward over the southern parts of England, and also over France, Spain and northern Italy; Northerly or North-Westerly over southern Italy and Greece. Calm or light from the Southward in Ireland and Scotland; Northerly or North-Westerly over Scandinavia, Denmark, the Baltic, and western Russia; light from the Westward in Germany and Austria. Subsequently backing to the Westward or South-Westward in the west of Norway, and blowing strongly.

*Barometer* highest, 30·3 ins. and upwards at most of the English stations; 30·1 ins. and upwards in an anticyclone embracing nearly the whole of western and central Europe. Lowest, 29·8 ins. and less in a large shallow depression over central Russia; 29·9 ins. and less in three other systems lying respectively over the Adriatic, the Gulf of Genoa and Morocco. No important change occurring over western Europe during day.

## Tuesday, 22nd August.

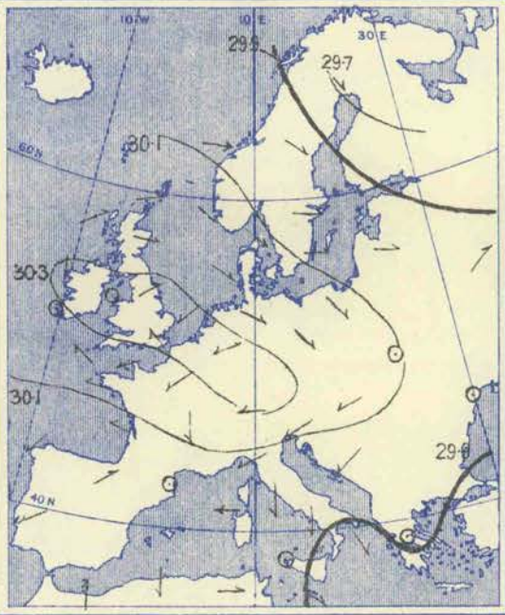
### Temperature and Weather. — 8 a.m.

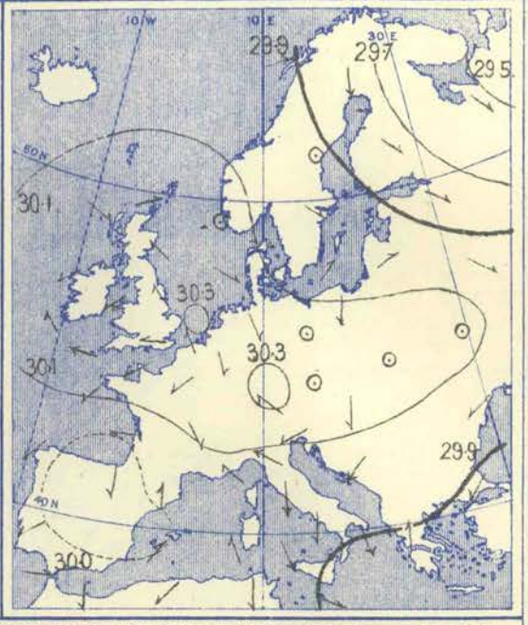


*Weather* in morning fine and bright over western, central and southern Europe generally, but dull at some of the German and Austrian stations, with rain at Breslau; dull also over Scandinavia, with rain at Christiansund. Rain falling later in the west of Norway, and at one or two of the Swedish and Russian stations, but weather remaining very dry in our Islands.

*Temperature* fallen a little over England, but risen in most other countries. Morning readings highest, 81° at Sfax, and 79° at La Calle, Palermo and Malta; above 70° in many parts of southern Europe, and very little below it on the north-east coasts of Scotland. Lowest, (1) 47° at Bodö, and 54° at Haparanda and Skudesnaes; (2) 51° at Belfort, and 53° at Munich. Rising during day to between 75° and 80° in most parts of the United Kingdom and to 82° at Loughborough; exceeding 85° at several stations in southern Europe, and reaching 90° at La Coubre, Cape Béarn and Sanguinaire.

### Barometer and Wind. — 8 a.m. and 6 p.m.



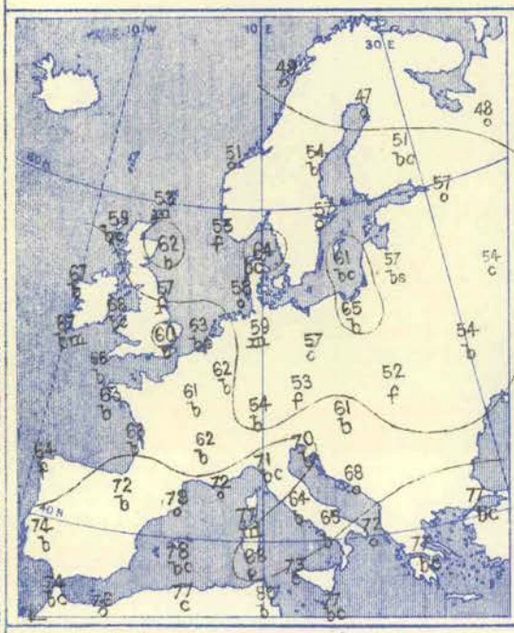


*Wind* light to moderate from the Eastward or North-Eastward over the southern parts of the United Kingdom, and also over western Germany, France, and the Spanish Peninsula; Northerly in Italy; variable at the Mediterranean stations. Light from the Westward or South-Westward over the northern parts of Great Britain; Westerly or North-Westerly over Scandinavia, Denmark, north Germany and the Baltic, and strong in force at Christiansund. No important change occurring during day.

*Barometer* highest, 30·3 ins. and upwards over the greater part of Ireland, England, the Netherlands, and western Germany; 30·1 ins. and upwards in an anticyclone embracing nearly the whole of western and central Europe. Lowest, 29·7 ins. and less in a shallow depression over Lapland; 29·9 ins. and less in another shallow area over the eastern parts of the Mediterranean. Both depressions moving slowly eastwards during day; anticyclone in west beginning to disperse gradually.

## Wednesday, 23rd August.

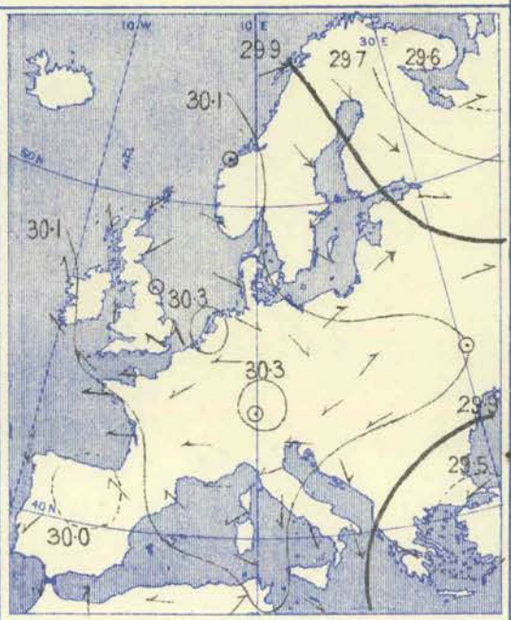
### Temperature and Weather. — 8 a.m.

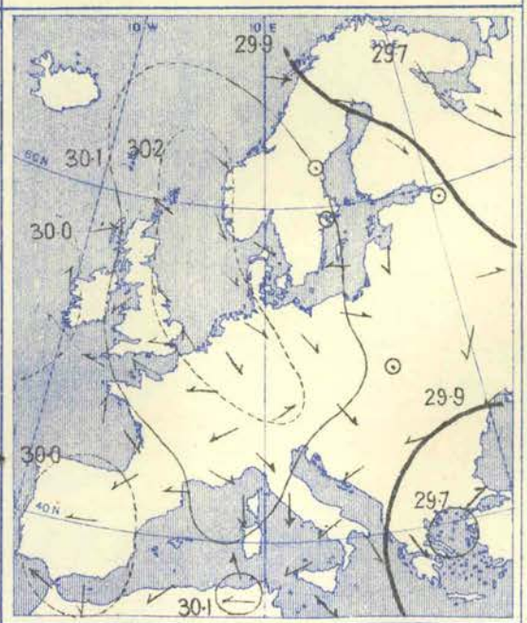


*Weather* in morning fine over Europe as a whole, but with fog or mist on some parts of the North Sea coasts and also over Germany. Dull in the west of Norway and many parts of northern Russia. A little rain falling later at Bodö, and a considerable quantity at Hermanstadt, but weather in our Islands remaining very dry.

*Temperature* fallen in northern parts of our Islands and Scandinavia, and also in Italy, but risen elsewhere. Morning readings highest, 84° at Bilbao, 80° at La Calle, and 78° at Barcelona and Palma; above 70° in many parts of southern Europe, and above 65° over all the south-western parts of the United Kingdom. Lowest, 47° at Ulealborg, 48° at Archangel, 49° at Haparanda and Bodö. Rising during day to 75° and upwards in Ireland, and to 80° and upwards in many parts of England, and reaching 84° in London and at Loughborough; exceeding 85° at several of the French and Spanish stations, and touching 93° at Bordeaux and Bilbao.

### Barometer and Wind. — 8 a.m. and 6 p.m.





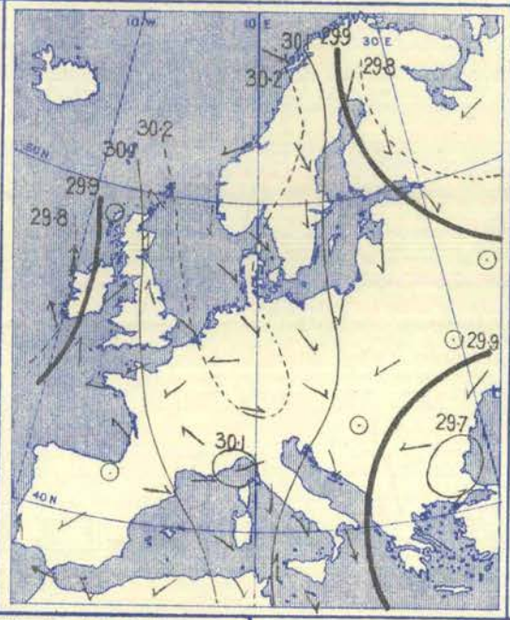
*Wind* light from the Southward or South-Eastward over the greater part of our Islands, but from the Eastward or North-Eastward in the south of England, and also over Belgium, France and northern Italy; Northerly over the Spanish Peninsula and southern Italy; North-Westerly or Westerly in Greece; North-Westerly over Scandinavia, Denmark, and the northern parts of Russia and Germany; Westerly or South-Westerly over central Russia and eastern Germany. Subsequently shifting to the North-Westward in the west of France; no important change occurring elsewhere.

*Barometer* highest, 30·3 ins. and upwards over the Netherlands; 30·1 ins. and upwards in an anticyclone covering the whole of western and central, and a considerable portion of southern Europe. Lowest, 29·6 ins. and less in a depression over the White Sea; 29·8 ins. and less in another system over Asia Minor; 30·0 ins. and less in a shallow area over the north of Spain. Fall taking place over western Europe during day, and new low pressure system appearing off the Irish coast.

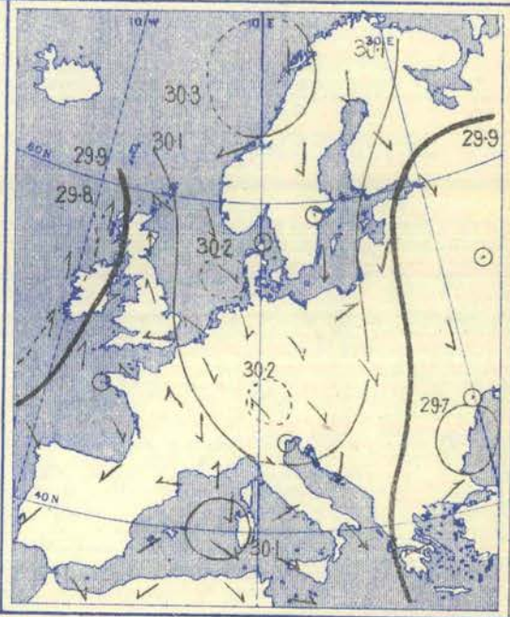
## Thursday, 24th August.

### Temperature and Weather. 8 a.m.

### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over the greater part of our Islands and the Continent, but foggy on the north and east coasts of Scotland, and cloudy or dull over the southern parts of Ireland. Dull also in several parts of Russia and eastern Germany, with rain at Kuopio and Nicolaieff. Heavy rain falling later in the west of Ireland (as much as 2·2 ins. at Valencia), and slight quantities in the south-west of England. Rain falling also in Russia, the amount reported at Nicolaieff being 2·7 ins.

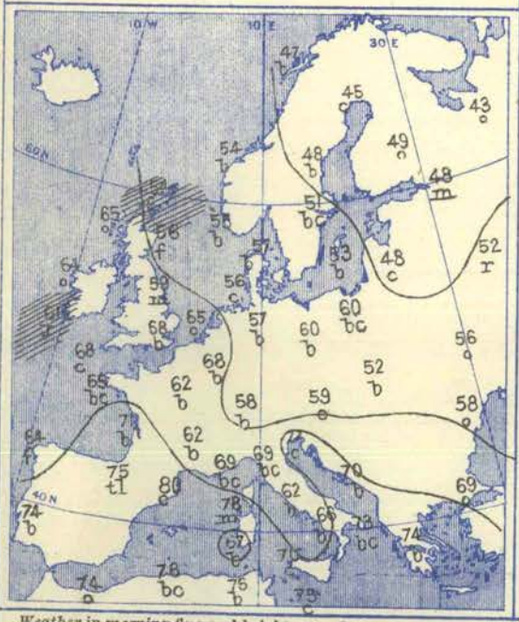
*Temperature* risen a little over Great Britain, Germany and Austria, but fallen in most other countries. Morning readings highest, 81° at Barcelona, 79° at Bilbao, and 78° at San Fernando, above 70° in many parts of southern Europe, as well as at Jersey, and very little below it in Ireland and the south of England. Lowest, 44° at Haparanda, and 45° at Bodö, Archangel and Kuopio. Rising during day to 85° or slightly above it in several parts of Great Britain and reaching 88° in London; exceeding 90° at some of the French stations, and touching 95° at Bordeaux.

*Wind* South-Easterly or Southerly over the United Kingdom generally, and fresh or strong in force on the Irish coasts; light from the Eastward over the English Channel, France and Belgium; variable over the Spanish Peninsula. Northerly or North-Westerly over northern and central Europe generally, as well as in Greece and Italy; calm or variable in the south of Russia. No important change occurring over western Europe later.

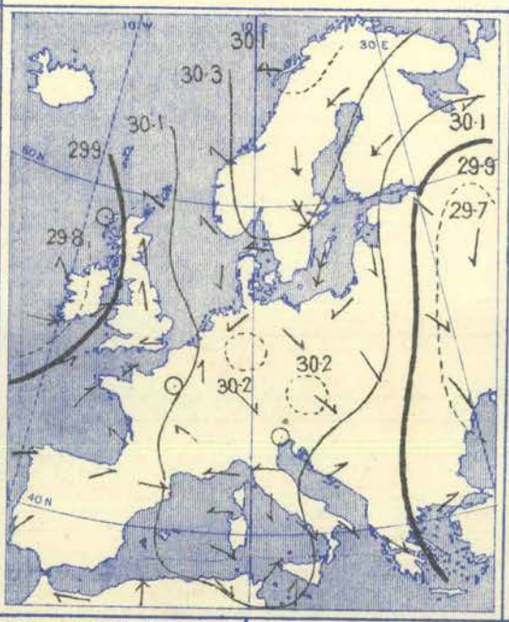
*Barometer* highest, 30·1 ins. to 30·3 ins. in an anticyclone embracing a considerable portion of western, central and southern Europe. Lowest, 29·7 ins. and less in a depression over the Black Sea; 29·8 ins. and less in two other systems, one lying over northern Russia, and the other off the west of Ireland. Irish depression subsequently moving slowly northwards, barometer falling in most parts of western Europe.

## Friday, 25th August.

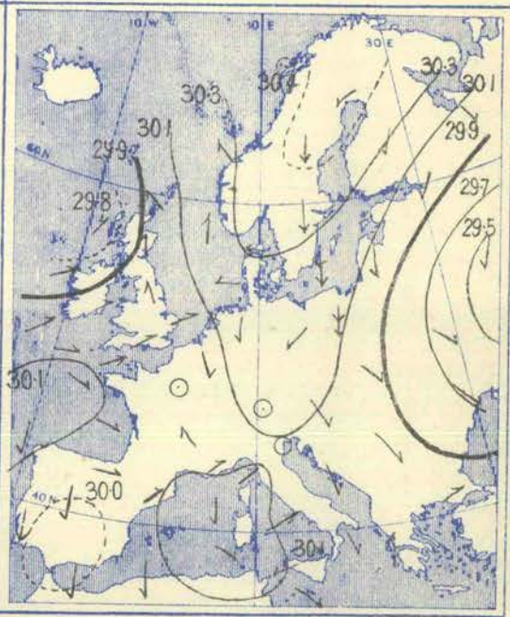
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over the greater part of our Islands and the Continent, but foggy on the north-east coasts of Scotland, and cloudy or dull on our western coasts, with rain or passing showers at most of the Irish stations. Dull in Russia, with rain at Moscow and Nicolaieff, and also at Memel. A little rain falling later at several of our own western and northern stations, and considerable quantities in some parts of central and southern Russia; thunderstorms occurring in the north of Scotland, and thunder only at Malin Head.

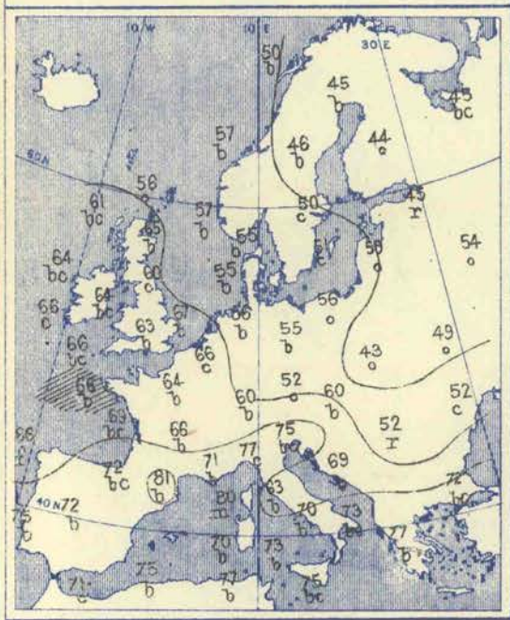
*Temperature* changed little and somewhat irregularly. Morning readings highest, 80° at Barcelona, 78° at Sanguinaire, and 77° at Trieste; above 70° at many of the Mediterranean stations, and also at some places in the west of France, and the south of England. Lowest, 43° at Archangel, 44° at Hangö and Helsingfors, and 45° at Haparanda; lowest in our Islands 54° at Sumburgh Head. Rising during day to between 83° and 85° in many parts of Great Britain, and to 90° in London; exceeding 90° at some of the French and Spanish stations, and reaching 96° at Limoges and Bordeaux.

*Wind* light from the South-Eastward over the greater part of the United Kingdom, and also in the west of Norway, but moderate to fresh from the South-Westward or Westward on our extreme south-west coasts. Northerly over Sweden, Denmark, and northern Russia, with a gale at Stockholm and Wisby; light from the North-Westward in Germany and Austria. South-Westerly breezes setting in later over all the more western and southern parts of the United Kingdom. Wind shifting to the North-Westward in the west of France, and to the Northward over the Spanish Peninsula.

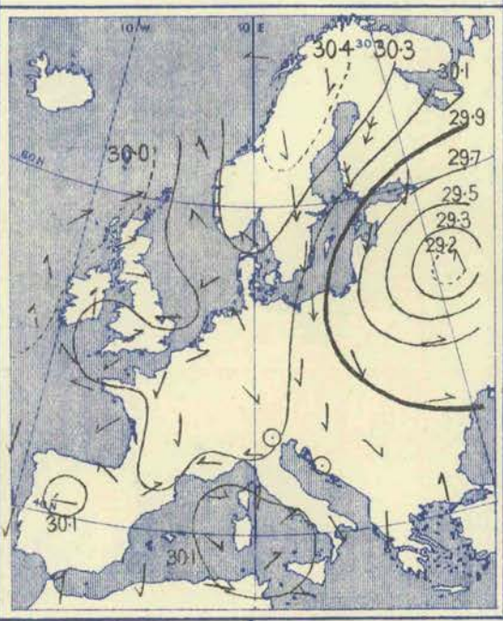
*Barometer* highest 30·3 ins. to 30·4 ins. over the greater part of Scandinavia; 30·1 ins. and upwards in an anticyclone covering the whole of northern and central, and a considerable portion of southern Europe. Lowest, 29·6 ins. and less in a depression over the extreme south of Russia, 29·8 ins. and less in another disturbance lying over and to the westward of Ireland. Both depressions moving Northwards later, and Russian disturbance increasing steadily in depth.

## Saturday, 26th August.

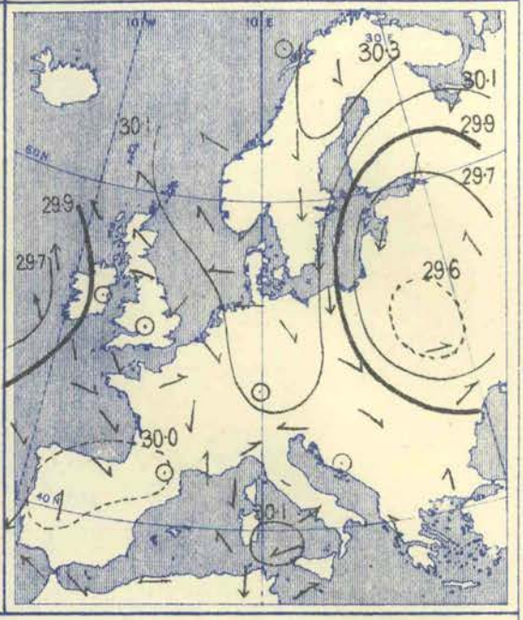
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over our Islands and the Continent generally, but cloudy or dull in many parts of Russia, Austria, and eastern Germany, with rain at St. Petersburg and Hermanstadt. Rain falling later in the west of our Islands generally, rather heavily in the south of Ireland. Thunderstorms occurring at Riga and La Coubre.

*Temperature* fallen in most countries, but risen in Norway, and also in Greece and Italy. Morning readings highest, 81° at Barcelona, 80° at Sanguinaire, and 77° at Patras and La Calle; above 70° over southern Europe generally, and above 65° in many parts of the United Kingdom. Lowest, 43° at Bodö and Hangö, 44° at Kuopio, and 45° at Archangel, Ulcaborg, Helsinfors and St. Petersburg. Rising during day to 80° or slightly above it at several of the English stations, but remaining below 70° on many parts of our western, northern and eastern coasts. Exceeding 90° at several of the French and Spanish stations, and reaching 97° at Limoges, and 96° at Bordeaux.

*Wind* rather variable in the south of England, but light to moderate from the Southward or South-Eastward on our western coasts, and light from the South-Westward or Westward in the northern and eastern parts of Great Britain. Northerly or North-Easterly in France and Spain, variable in Italy. South-Easterly on the eastern shores of the North Sea, Northerly over Sweden, western Russia, eastern Germany and Austria, with a gale over Finland and the Baltic. Subsequently shifting to the North-Westward at many of the French stations, blowing strongly from the South-Eastward in the west and south of Ireland at night.

*Barometer* highest, 30·4 ins. and upwards over the northern parts of Sweden, 30·1 ins. and upwards in an anticyclone of somewhat irregular form, covering a considerable portion of northern, western and southern Europe. Lowest, 29·2 ins. and less in a rather deep depression with its centre near Moscow. New disturbance advancing later towards the west of Ireland, and barometer falling rather decidedly on our western coast generally.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the commencement of the week the western countries were under the influence of a large anticyclone, having its central area directly over our Islands, the winds being everywhere light, and the weather fine and dry. Over eastern, and some parts of central Europe, the conditions were affected by a depression which lay at first over the Baltic Provinces, but which afterwards moved away eastwards, a cyclonic circulation of wind being reported (with very strong Northerly breezes in Sweden), and rain occurring in some places. On the 21st a complex series of depressions appeared also over various parts of the Mediterranean, and occasioned heavy rain over central Italy.

The western anticyclone now moved slowly eastward and north-eastward and partially dispersed, while the weather over the western and northern parts of the United Kingdom began to be influenced by depressions which moved northwards along the Irish and Scotch coasts. These occasioned freshening Southerly winds and heavy rain in Ireland, the latter extending in a lesser degree over the western and northern parts of Great Britain, and being accompanied in some places by thunder and lightning. Over England the weather remained fine and dry, with a steady rise in temperature, culminating on the 25th, when a reading of 90° was reached in London, at Cambridge and Llandovery. In the eastern parts of Europe the conditions were still unsettled, owing to a new depression which appeared over Asia Minor on the 23rd, and which afterwards moved steadily in a north-north-easterly direction to central Russia, and increased greatly in depth. On the 25th and 26th Northerly to North-Easterly gales of considerable strength were experienced over Sweden, the Baltic, and western Russia.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 200.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 33·2 | ? | 33 | ? | WATERGATE (Emsworth) | 82·2 | ? | 84 | ? |
| STRATHPEFFER SPA | 54·0 | +28·1 | 53 | +28 | BRIGHTON | 87·8 | +40·6 | 90 | +42 |
| EDINBURGH | 55·4 | +22·7 | 55 | +23 | WORTHING | 84·8 | ? | 87 | ? |
| MORPETH | 61·7 | ? | 62 | ? | BOGNOR | 83·5* | ? | 85* | ? |
| NEWCASTLE-ON-TYNE | 41·5 | ? | 42 | ? | EASTBOURNE | 83·1 | +39·7 | 85 | +41 |
| OSWALDKIRK (Yorkshire) | 57·4 | +27·6 | 58 | +29 | VENTNOR HOSPITAL | 77·5 | ? | 79 | ? |
| LOWESTOFT | 65·2 | ? | 67 | ? | SOUTHPORT | 66·5 | ? | 67 | ? |
| HOLLESLEY BAY | 77·9 | ? | 79 | ? | COLWYN BAY | 69·5 | ? | 71 | ? |
| SHEFFIELD | 49·5 | ? | 51 | ? | ABERDOVEY | 72·4* | ? | 74* | ? |
| WORKSOP | 66·8 | +35·0 | 68 | +36 | TENBY | 74·9 | +32·9 | 76 | +34 |
| THURCASTON (Leicestershire) | 75·1 | +39·5 | 77 | +42 | NEWQUAY | 78·0 | +33·2 | 80 | +35 |
| MARGATE | 77·2 | +36·2 | 79 | +38 | TORQUAY | 82·4 | +37·2 | 85 | +39 |
| WESTBOURNE (Emsworth) | 86·0* | +40·9 | 88* | +42 | GUERNSEY | 82·8* | +29·3 | 85* | +31 |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS LTD LITH, 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 35.] *Third Series.* WEEK ENDING SATURDAY, SEPTEMBER 2ND, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 206.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 75 | 41 | 63·6 | 51·9 | 57·4 | 4 above | 108 | +26 | 0 | 0 | 1746 | +332 | 617 | − 6 |
| | 1. SCOTLAND, EAST | 72 | 35 | 65·7 | 49·9 | 57·3 | 3 above | 107 | +11 | 0 | 0 | 1940 | +207 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 74 | 45 | 67·4 | 52·4 | 59·5 | 3 above | 123 | +17 | 0 | 0 | 2167 | +333 | 456 | − 93 |
| | 3. ENGLAND, EAST | 85 | 47 | 72·3 | 54·8 | 63·0 | 4 above | 147 | +30 | 0 | 0 | 2512 | +373 | 421 | −196 |
| | 4. MIDLAND COUNTIES | 80 | 48 | 69·9 | 52·7 | 60·8 | 3 above | 132 | +18 | 0 | 0 | 2536 | +394 | 478 | −141 |
| | 5. ENGLAND, SOUTH | 85 | 50 | 70·2 | 56·7 | 63·1 | 3 above | 148 | +19 | 0 | 0 | 2810 | +499 | 294 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 71 | 43 | 65·0 | 51·3 | 57·7 | 2 above | 110 | +13 | 0 | 0 | 2070 | +258 | 413 | − 49 |
| | 7. ENGLAND, N.W. | 72 | 48 | 66·5 | 54·3 | 60·0 | 2 above | 126 | +16 | 0 | 0 | 2361 | +401 | 313 | −146 |
| | 8. ENGLAND, S.W. | 76 | 45 | 68·2 | 54·4 | 60·9 | 3 above | 132 | +17 | 0 | 0 | 2682 | +513 | 240 | −121 |
| | 9. IRELAND, NORTH | 73 | 43 | 65·6 | 52·8 | 58·8 | 3 above | 118 | +16 | 0 | 0 | 2231 | +308 | 323 | − 72 |
| | 10. IRELAND, SOUTH | 73 | 47 | 66·4 | 54·4 | 60·1 | 2 above | 127 | +15 | 0 | 0 | 2599 | +427 | 245 | − 54 |
| | —CHANNEL ISLANDS | 72 | 54 | 69·3 | 59·8 | 64·3 | 4 above | 156 | +26 | 0 | 0 | 3117 | +691 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 206.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 5 | 7 | 3 less | 139 | −19 | 27·2 | − 2·7 | 25 | + 8 | 25 | +10 | 1008 | +152 | 30 | + 4 |
| | 1. SCOTLAND, EAST | 6 | 10 | 3 more | 129 | − 1 | 20·8 | + 0·7 | 25 | − 6 | 26 | − 5 | 1072 | + 74 | 33 | + 3 |
| | 2. ENGLAND, N.E. | 6 | 9 | 4 more | 118 | − 3 | 15·3 | − 1·1 | 32 | + 5 | 33 | + 5 | 1037 | + 73 | 33 | + 3 |
| | 3. ENGLAND, EAST | 5 | 5 | 1 less | 104 | −14 | 13·2 | − 3·0 | 49 | + 8 | 52 | + 9 | 1454 | +235 | 44 | + 8 |
| | 4. MIDLAND COUNTIES | 6 | 6 | 1 more | 103 | −12 | 15·6 | − 2·1 | 38 | + 2 | 40 | + 3 | 1291 | +273 | 41 | + 8 |
| | 5. ENGLAND, SOUTH | 6 | 9 | 4 more | 89 | −22 | 13·7 | − 3·8 | 47 | + 6 | 49 | + 8 | 1557 | +312 | 48 | +10 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 6 | 10 | 0 (average) | 138 | + 2 | 30·2 | − 0·4 | 34 | + 1 | 36 | + 4 | 1092 | + 36 | 34 | + 2 |
| | 7. ENGLAND, N.W. | 6 | 12 | 5 more | 125 | 0 | 21·9 | + 1·0 | 38 | + 5 | 40 | + 6 | 1274 | +221 | 39 | + 6 |
| | 8. ENGLAND, S.W. | 7 | 14 | 6 more | 113 | −13 | 24·3 | + 0·4 | 45 | + 3 | 48 | + 5 | 1524 | +248 | 47 | + 7 |
| | 9. IRELAND, NORTH | 6 | 13 | 5 more | 145 | − 3 | 23·3 | − 0·1 | 36 | + 8 | 37 | + 8 | 1116 | +146 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 6 | 14 | 6 more | 123 | −11 | 27·6 | + 2·8 | 41 | + 9 | 43 | +10 | 1265 | +169 | 39 | + 5 |
| | — CHANNEL ISLANDS | 6 | 8 | 2 more | 106 | −26 | 16·8 | − 2·4 | 49 | − 5 | 52 | − 4 | 1670 | +272 | 55 | + 9 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was much less settled than of late, rain falling rather frequently in all parts of the Kingdom, and thunderstorms occurring from time to time.

*Temperature* was again above the mean, the excess ranging from 2° in Scotland W., England N.W., and Ireland S., to 4° in Scotland N., England E., and the Channel Islands. The highest of the maxima were registered on August 27th, and ranged from 85° in England E and S., to 72° in Scotland E., England N.W., and the Channel Islands, and to 71° in Scotland W. The lowest of the minima, which were mostly recorded on August 29th, varied from 35° in Scotland E., to 50° in England S., and to 54° in the Channel Islands.

*Rainfall* was rather less than the mean in Scotland N. and England E., and just equal to it in Scotland W. In all other districts there was an excess, that in most cases being rather large.

*Bright Sunshine* was less than the mean in Scotland E. and the Channel Islands, but was again in excess in all other parts of the Kingdom. The percentage of the possible duration ranged from 52 in England E. and the Channel Islands, and 49 in England S., to 26 in Scotland E., and 25 in Scotland N.

*Barometer and Wind.*—During the whole of this period the barometer was highest to the southward or south-eastward of our Islands, while occasional depressions passed north-eastwards over our north-western and northern districts, and secondary disturbances travelled over the more southern parts of the country. Moderate or light breezes between South and West were consequently most prevalent over the United Kingdom, but the Southerly wind in the north of Ireland at the commencement of the week blew rather strongly.

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913 | 70 8 | 99.

# II.—DATA from which the SUMMARY on page 205 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 60 | 47 | 58·1 | 50·7 | 54·2 | + 2·4 | 85 | 0 | 4 | 0·26 | − 0·54 | * | * | * | * |
| | Stornoway | 71 | 45 | 66·1 | 50·6 | 57·9 | + 5·2 | 111 | 0 | 3 | 0·30 | − 0·58 | 50·1 | +23·8 | 51 | +25 |
| | Wick | 65 | 52 | 59·4 | 53·3 | 56·2 | + 2·7 | 99 | 0 | 7 | 0·94 | + 0·33 | * | * | * | * |
| | Lairg Ⓢ | 75 | 52 | 67·9 | 54·8 | 61·0 | + 6·7 | 133 | 0 | 4 | 0·66 | + 0·08 | * | * | * | * |
| | Glencarron Ⓢ | 68 | 45 | 63·7 | 50·9 | 56·9 | + 3·4 | 104 | 0 | 7 | 1·34 | − 0·23 | * | * | * | * |
| | Fort Augustus Ⓢ | 68 | 41 | 66·2 | 50·9 | 58·1 | + 2·6 | 113 | 0 | 4 | 0·26 | − 0·52 | 27·8 | +10·4 | 29 | +12 |
| | Fort William Ⓢ | 67 | 45 | 64·1 | 51·9 | 57·6 | + 1·7 | 109 | 0 | 7 | 0·98 | − 0·44 | 19·6 | − 0·9 | 20 | 0 |
| 1. SCOTLAND E. | Nairn | 70 | 42 | 66·9 | 49·6 | 57·7 | + 2·7 | 110 | 0 | 6 | 0·65 | + 0·12 | * | * | * | * |
| | Aberdeen | 64 | 49 | 60·6 | 52·3 | 56·2 | + 1·4 | 99 | 0 | 7 | 1·46 | + 0·84 | 6·1 | −27·2 | 6 | −28 |
| | Braemar Ⓢ | 66 | 35 | 64·1 | 45·6 | 54·3 | + 2·5 | 86 | 0 | 5 | 1·36 | + 0·44 | 29·7† | + 3·9† | 31† | + 5† |
| | Ochtertyre Ⓢ | 72 | 44 | 69·0 | 49·0 | 58·4 | + 3·1 | 115 | 0 | 6 | 0·88 | + 0·13 | * | * | * | * |
| | Leith | 68 | 45 | 67·3 | 52·3 | 59·4 | + 2·7 | 122 | 0 | 5 | 0·44 | − 0·07 | * | * | * | * |
| | Marchmont Ⓢ | 69 | 47 | 66·0 | 50·6 | 57·8 | + 3·3 | 111 | 0 | 5 | 1·23 | + 0·53 | 36·3 | + 2·9 | 37 | + 4 |
| 2. ENGLAND, N.E. | Alnwick Castle | 68 | 45 | 66·8 | 50·5 | 58·2 | + 3·0 | 113 | 0 | 6 | 0·73 | + 0·12 | * | * | * | * |
| | Durham | 71 | 45 | 67·7 | 49·3 | 58·0 | + 1·6 | 112 | 0 | 7 | 0·88 | + 0·37 | 32·2 | + 0·8 | 34 | + 2 |
| | Shields | 69 | 48 | 65·6 | 52·1 | 58·5 | + 2·0 | 116 | 0 | 6 | 0·99 | + 0·42 | * | * | * | * |
| | Scarborough Ⓜ | 74 | 51 | 67·9 | 53·6 | 60·3 | + 3·4 | 128 | 0 | 7 | 1·62 | + 1·10 | ? | ? | ? | ? |
| | Spurn Head | 74 | 55 | 69·1 | 56·4 | 62·4 | + 4·1 | 143 | 0 | 5 | 0·17 | − 0·21 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 81 | 52 | 73·1 | 56·0 | 64·0 | + 5·7 | 154 | 0 | 5 | 0·41 | − 0·14 | 44·6 | + 7·6 | 47 | + 9 |
| | Yarmouth | 72 | 52 | 69·1 | 55·9 | 62·1 | + 3·4 | 141 | 0 | 4 | 0·37 | − 0·13 | * | * | * | * |
| | Geldeston | 76 | 49 | 72·7 | 52·8 | 62·2 | + 3·6 | 141 | 0 | 5 | 0·53 | + 0·07 | 43·7 | + 3·0 | 46 | + 4 |
| | Cambridge | 85 | 49 | 74·6 | 54·1 | 63·7 | + 4·5 | 152 | 0 | 4 | 0·31 | − 0·18 | 51·2 | +12·0 | 54 | +14 |
| | Felixstowe | 80 | 52 | 73·6 | 56·7 | 64·6 | + 6·0 | 158 | 0 | 5 | 0·27 | ? | 55·6 | ? | 59 | ? |
| | Rothamsted | 80 | 47 | 70·5 | 53·1 | 61·3 | + 3·4 | 135 | 0 | 6 | 0·80 | + 0·28 | 47·3 | + 8·0 | 50 | +10 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 78 | 50 | 70·6 | 52·7 | 61·1 | + 3·5 | 134 | 0 | 5 | 0·46 | − 0·02 | * | * | * | * |
| | Loughborough | 77 | 49 | 70·9 | 53·6 | 61·7 | + 2·8 | 138 | 0 | 5 | 0·45 | − 0·03 | * | * | * | * |
| | Stamford (Duddington) | 80 | 48 | 71·9 | 52·4 | 61·6 | + 2·6 | 137 | 0 | 3 | 0·26 | − 0·27 | * | * | * | * |
| | Cheadle Ⓜ | 71 | 49 | 66·6 | 51·6 | 58·7 | + 3·0 | 117 | 0 | 7 | 0·78 | − 0·01 | * | * | * | * |
| | Shirley (near Solihull) | 75 | 49 | 69·0 | 52·5 | 60·3 | + 2·1 | 128 | 0 | 6 | 0·74 | ? | * | * | * | * |
| | Churchstoke Ⓜ | | | | | | | | | | | | | | | |
| | Hereford (Belmont) Ⓜ | 77 | 49 | 70·4 | 52·1 | 60·7 | + 2·3 | 131 | 0 | 5 | 0·65 | + 0·12 | * | * | * | * |
| | Cirencester | 75 | 48 | 69·7 | 51·9 | 60·3 | + 3·4 | 128 | 0 | 7 | 1·03 | + 0·41 | 39·6 | + 1·3 | 42 | + 2 |
| | Oxford | 78 | 53 | 70·3 | 55·1 | 62·2 | + 2·9 | 141 | 0 | 6 | 0·57 | + 0·07 | 39·8 | 0·0 | 42 | 0 |
| 5. ENGLAND, S. | London | 85 | 51 | 74·4 | 56·0 | 64·7 | + 4·2 | 159 | 0 | 5 | 0·31 | − 0·19 | 42·0† | + 6·0† | 44† | + 7† |
| | Cranley Ⓜ | 81 | 50 | 71·3 | 55·1 | 62·7 | + 2·8 | 145 | 0 | 5 | 0·67 | ? | * | * | * | * |
| | Dungeness | 73 | 54 | 70·4 | 60·0 | 64·9 | + 4·3 | 160 | 0 | 6 | 1·10 | + 0·63 | * | * | * | * |
| | Hastings (St. Leonards) | 74 | 54 | 69·8 | 57·8 | 63·4 | + 3·4 | 150 | 0 | 6 | 1·47 | + 0·99 | 50·5 | + 6·6 | 54 | + 9 |
| | Southampton | 80 | 54 | 72·6 | 56·6 | 64·1 | + 3·8 | 155 | 0 | 6 | 0·81 | + 0·26 | 45·9 | + 1·1 | 49 | + 3 |
| | Portland Bill | 70 | 56 | 66·7 | 56·9 | 61·5 | + 1·5 | 137 | 0 | 5 | 0·86 | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 75 | 50 | 66·5 | 54·4 | 60·1 | + 1·7 | 127 | 0 | 6 | 1·22 | + 0·37 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 71 | 51 | 65·0 | 53·0 | 58·6 | + 2·9 | 116 | 0 | 6 | 1·90 | + 0·63 | * | * | * | * |
| | Glasgow | 68 | 50 | 64·1 | 53·3 | 58·4 | + 3·1 | 115 | 0 | 5 | 0·96 | + 0·04 | 26·2 | −2·5 | 27 | −1 |
| | Glenlee Ⓢ | 71 | 43 | 64·9 | 48·2 | 56·1 | + 1·0 | 99 | 0 | 6 | 0·59 | − 0·42 | * | * | * | * |
| | Douglas (Isle of Man) | 68 | 47 | 65·8 | 50·6 | 57·7 | + 2·0 | 110 | 0 | 6 | 0·51 | − 0·37 | 42·5 | +6·3 | 44 | +8 |
| 7. ENGLAND, N.W. | Stonyhurst | 69 | 51 | 65·0 | 53·0 | 58·6 | + 2·1 | 116 | 0 | 5 | 1·48 | + 0·31 | 34·4 | +2·6 | 36 | +4 |
| | Blackpool Ⓜ | 72 | 50 | 66·9 | 54·9 | 60·5 | + 2·6 | 130 | 0 | 4 | 0·87 | + 0·15 | 39·6 | +7·4 | 41 | +8 |
| | Manchester (Prestwich) | 72 | 48 | 67·9 | 52·1 | 59·5 | + 2·4 | 123 | 0 | 6 | 1·19 | + 0·39 | 28·8 | ? | 30 | ? |
| | Liverpool Obsy. (Bidston) | 72 | 52 | 66·4 | 54·1 | 59·9 | + 1·5 | 125 | 0 | 5 | 1·7 | + 1·17 | 35·3 | ? | 37 | ? |
| | Llandudno Ⓜ | 72 | 55 | 67·3 | 56·5 | 61·6 | + 2·6 | 137 | 0 | 6 | 1·60 | + 1·02 | 37·8 | +4·8 | 40 | +6 |
| | Holyhead | 67 | 52 | 65·4 | 55·3 | 60·1 | + 2·0 | 127 | 0 | 7 | 0·36 | − 0·34 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 74 | 45 | 70·0 | 48·9 | 58·8 | + 0·9 | 118 | 0 | 7 | 1·11 | + 0·11 | * | * | * | * |
| | Pembroke | 67 | 55 | 64·9 | 57·6 | 61·0 | + 2·7 | 133 | 0 | 6 | 1·32 | + 0·70 | 51·7 | +10·3 | 54 | +12 |
| | Clifton | | | | | | | | | | | | * | * | * | * |
| | Arlington (N. Devon) | 71 | 52 | 67·0 | 53·6 | 59·9 | + 3·3 | 125 | 0 | 7 | 2·47 | + 1·39 | * | * | * | * |
| | Cullompton Ⓜ | 76 | 48 | 70·6 | 51·7 | 60·6 | + 2·0 | 130 | 0 | 7 | 0·98 | + 0·38 | 37·7 | −1·8 | 40 | −1 |
| | Falmouth | 73 | 55 | 68·8 | 56·9 | 62·5 | + 3·7 | 144 | 0 | 7 | 1·11 | + 0·26 | 47·9 | +2·9 | 51 | +5 |
| | Plymouth | 71 | 53 | 67·9 | 57·5 | 62·4 | + 2·6 | 143 | 0 | 7 | 1·35 | + 0·73 | 40·8 | −0·6 | 43 | 0 |
| 9. IRELAND, N. | Malin Head | 69 | 53 | 63·6 | 55·1 | 59·1 | + 2·4 | 120 | 0 | 6 | 0·64 | ? | * | * | * | * |
| | Londonderry | 73 | 50 | 68·3 | 53·1 | 60·2 | + 3·7 | 127 | 0 | 7 | 0·84 | + 0·04 | * | * | * | * |
| | Edenfel (Omagh) | 67 | 43 | 64·9 | 51·4 | 57·8 | + 2·7 | 111 | 0 | 7 | 2·09 | + 1·30 | * | * | * | * |
| | Belmullet | 65 | 51 | 63·1 | 55·4 | 59·0 | + 1·6 | 119 | 0 | 7 | 1·57 | + 0·64 | * | * | * | * |
| | Markree Castle | 67 | 46 | 65·5 | 50·9 | 57·8 | + 2·4 | 111 | 0 | 7 | 2·36 | + 1·48 | 29·7 | + 2·0 | 31 | + 2 |
| | Armagh | 69 | 48 | 67·1 | 52·4 | 59·3 | + 3·4 | 121 | 0 | 5 | 0·89 | + 0·22 | 41·6 | +15·5 | 43 | +16 |
| | Donaghadee | 71 | 50 | 66·4 | 51·0 | 58·2 | + 1·8 | 113 | 0 | 6 | 0·79 | + 0·09 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 73 | 52 | 67·1 | 54·9 | 60·6 | + 3·0 | 130 | 0 | 7 | 1·52 | + 1·00 | 37·8 | + 3·1 | 40 | + 5 |
| | Parsonstown | 69 | 50 | 66·0 | 53·0 | 59·1 | + 2·4 | 120 | 0 | 4 | 0·78 | + 0·11 | 41·6 | +13·5 | 44 | +14 |
| | Kilkenny | 71 | 47 | 67·7 | 51·0 | 58·9 | + 0·9 | 118 | 0 | 6 | 0·93 | + 0·11 | * | * | * | * |
| | Roche's Point | 69 | 54 | 67·0 | 56·0 | 61·2 | + 3·0 | 134 | 0 | 6 | 0·93 | + 0·03 | * | * | * | * |
| | Valencia | 67 | 54 | 65·3 | 56·6 | 60·7 | + 2·3 | 131 | 0 | 7 | 2·54 | + 1·38 | 43·4 | +10·3 | 46 | +11 |
| | Killarney | 69 | 50 | 66·5 | 55·5 | 60·7 | + 2·5 | 131 | 0 | 7 | 1·37 | ? | * | * | * | * |
| | Foynes | 68 | 52 | 65·5 | 53·8 | 59·3 | + 1·7 | 121 | 0 | 7 | 1·48 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 70 | 57 | 68·6 | 59·0 | 63·5 | + 4·1 | 151 | 0 | 7 | 0·99 | + 0·42 | 53·0 | ? | 56 | ? |
| | Jersey | 72 | 54 | 69·9 | 60·6 | 65·0 | + 3·3 | 161 | 0 | 5 | 0·55 | + 0·05 | 44·6 | − 8·8 | 47 | − 8 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

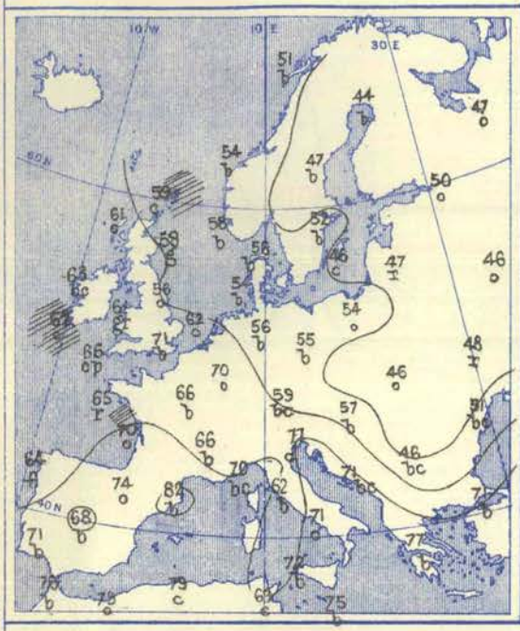
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observation made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

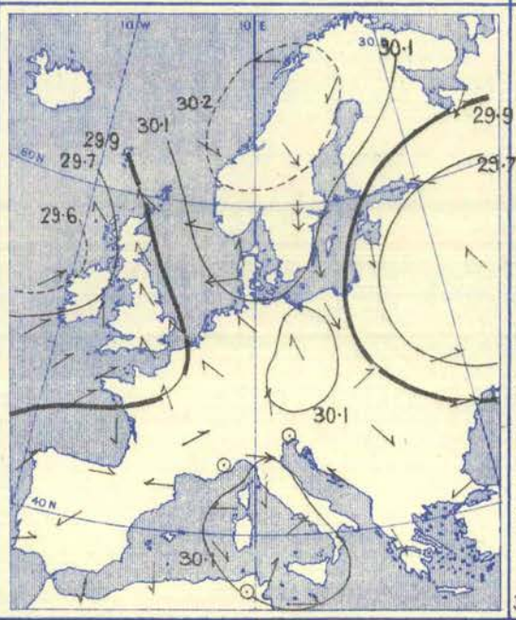
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 27th August.

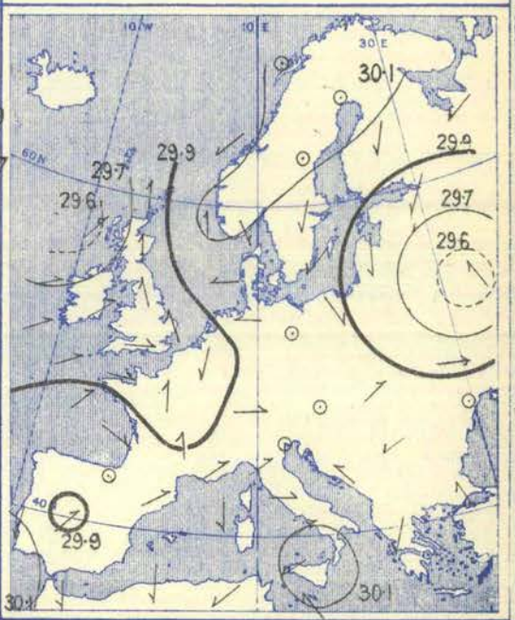
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning fine in the south-east of England, as well as over the greater part of the Continent, but dull in the west of France and also in Russia, with rain at Riga and Kiev. Cloudy or dull in the north of our Islands, and rainy or showery at several of our western stations. Showers falling later in nearly all parts of western Europe, heavily in places; thunderstorms occurring at many of the western stations in our Islands and France.

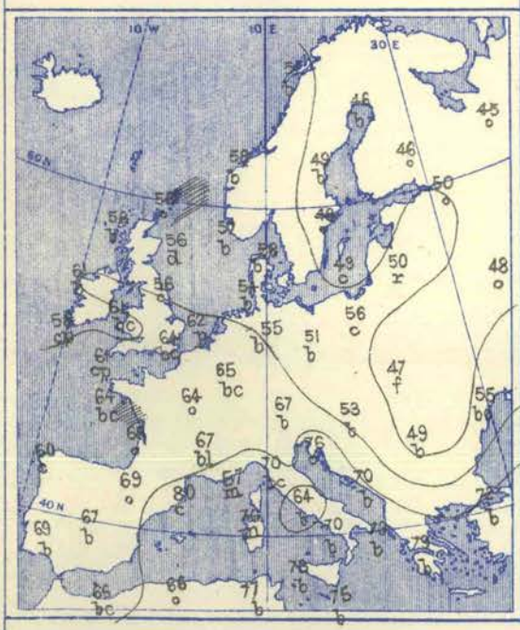
*Temperature* fallen in most localities, but risen in the south-east of England. Morning readings highest, 82° at Barcelona, 78° at Algiers, and 77° at Trieste and Patras; above 70° in most parts of southern Europe, and also in the south-east of England. Lowest, 44° at Ulcaborg, 45° at Haparanda, and 46° at Moscow, Lemberg and Hermanstadt. Daily maxima below 70° at most parts of our western, northern, and eastern coasts, but thermometer exceeding 75° over the inland parts of England, and reaching 85° in London. Exceeding 90° at several of the French and Spanish stations, and reaching 97° at Cape Béarn, and 98° at Madrid.

*Wind* South-Westerly in the west of our Islands, and fresh or strong in force in the north of Ireland. South-Easterly over all the northern and eastern parts of Great Britain, and also over the Netherlands and the eastern shores of the North Sea. Light and variable over central and southern Europe; North-Easterly over northern Russia, and Northerly over Sweden and the Baltic, with a gale at Stockholm; Westerly or South-Westerly over the southern parts of Russia. Subsequently veering to the Southward over the northern parts of Great Britain, no important change occurring elsewhere.

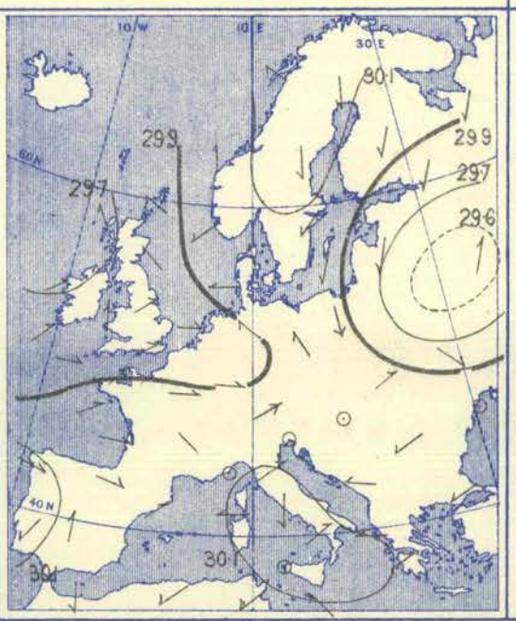
*Barometer* highest, 30·2 ins. and upwards in an anticyclone over the northern and central parts of Scandinavia, 30·1 ins. and less in two other areas—one lying over eastern and southern Germany, and the other over Italy and the neighbouring parts of the Mediterranean. Lowest, 29·6 ins. and less in a depression lying off the north-west of our Islands; 29·7 ins. and less in another disturbance over central Russia. Depression off our north-west coasts subsequently moving northwards, but shallow secondary system forming over England.

## Monday, 28th August.

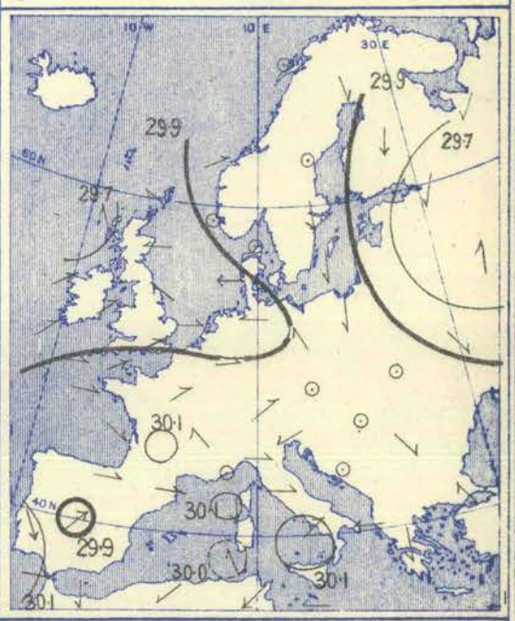
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning fine over the greater part of our Islands and the Continent, but showery on our south-western coasts, as well as at Yarmouth and the Helder. Dull over northern and central Russia, with rain at Riga and also at Vienna. Rain falling later in nearly all parts of western Europe—amount in our Islands mostly slight, but heavy at Liverpool and Valencia (Ireland). Thunderstorms occurring at many of the English stations, and also in the south of France.

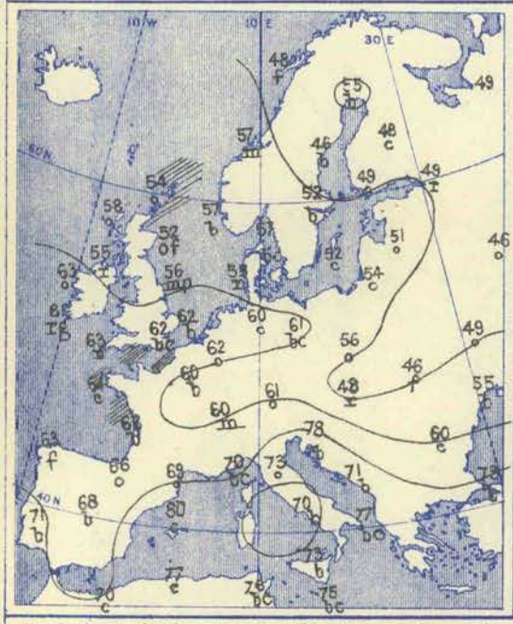
*Temperature* fallen in most parts of our Islands, risen in Germany, changed irregularly elsewhere. Morning readings highest, 80° at Barcelona, and 79° at Brindisi and Patras, above 70° at most of the Mediterranean and Adriatic stations, and reaching 65° or more at some of the English Channel stations. Lowest, 45° at Archangel, and 46° at Haparanda, Kuopio and Hangö. Rising during day to between 70° and 75° over England generally and to 77° in London; exceeding 75° also in many parts of France and Germany. Rising to between 80° and 85° over southern Europe generally, and reaching 90° at Cape Béarn and 91° at Sanguinaire.

*Wind* light to moderate from the Westward (South-West to North-West) over the southern parts of our Islands, and also over France, the Netherlands and west and south Germany, Southerly or South-Easterly over the northern parts of the United Kingdom, Easterly or South-Easterly over Norway, Denmark and north Germany, Northerly over Sweden and northern Russia, light from the South-Westward over central and southern Russia. Variable over southern Europe and the Mediterranean—no important change occurring over western Europe during day.

*Barometer* highest, 30·1 ins. and upwards in three areas, one lying over the northern parts of Scandinavia, another over Portugal, and the third over Italy and the adjacent portions of the Mediterranean. Lowest, 29·6 ins. and less in a well-marked but somewhat shallow depression over central Russia, 29·7 ins. and less in a shallow system off our own extreme north-west coasts. Depression in the north-west remaining stationary during day, but small secondary systems moving eastward across Ireland, England and the North Sea.

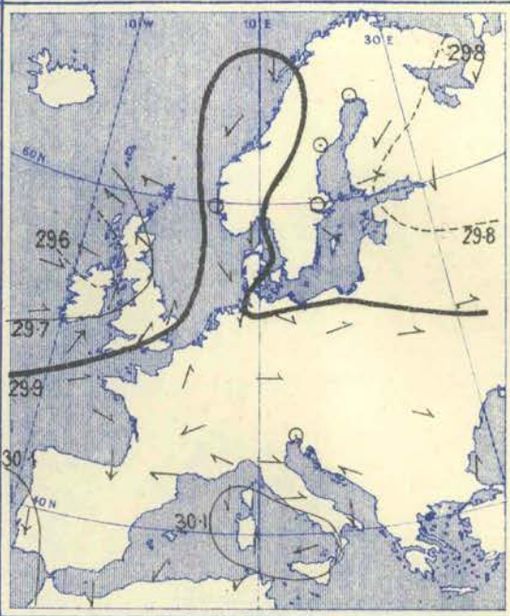
## Tuesday, 29th August.

### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.

### Barometer and Wind. 6 p.m.



*Weather* in morning fine at many stations in the northern and eastern parts of Great Britain, as well as over Scandinavia and southern Europe generally. Cloudy elsewhere, with rain or passing showers in the western parts of the United Kingdom; rain falling also at Archangel, St. Petersburg, Fanö and Cracow. Showers falling during day over the whole of the United Kingdom and the neighbouring parts of the Continent—heavily in places; thunderstorms occurring at Aberdeen and Malin Head, and lightning seen at several of the English and French stations.

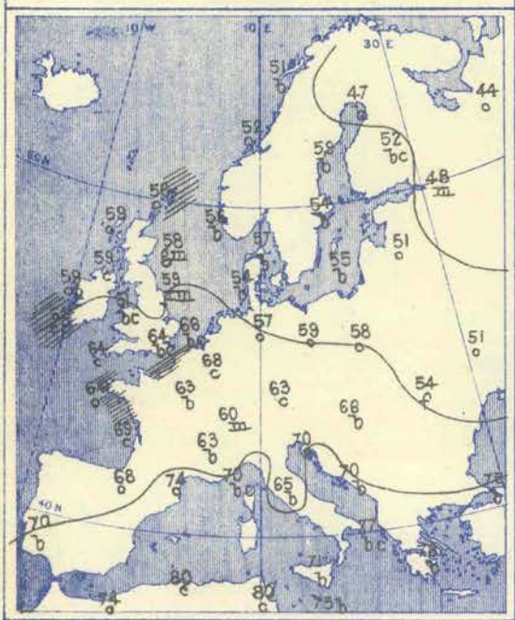
*Temperature* fallen a little in most countries. Morning readings highest, 80° at Barcelona and La Calle, and 78° at Trieste; above 70° in many parts of southern Europe, and touching 65° at some of the English Channel stations. Lowest, 45° at Uleaborg, and 46° at Karlstad, Moscow and Lemberg; below 50° in many parts of Russia and Scandinavia. Daily maxima below 60° on the north-east coasts of Scotland, and very little above 70° in any part of the United Kingdom; thermometer rising to between 80° and 85° in many parts of southern Europe, and reaching 90° at Croisette and 91° at Sanguinaire.

*Wind* light to fresh from the South-Westward over the southern parts of the United Kingdom and the adjacent parts of the Continent; light from the Southward or South-Eastward on our northern coasts, and from the Eastward in Norway and Denmark. Westerly over north Germany. Light and very variable over southern Europe generally. Northerly over Sweden and the northern and western parts of Russia. No important change occurring later.

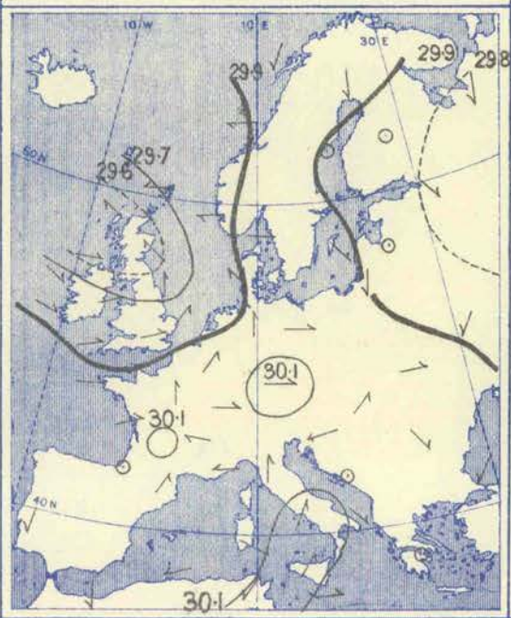
*Barometer* highest, 30·1 ins. and upwards over Portugal and also over Italy and the southern parts of France and Germany; 30·0 ins. and upwards in an anticyclone embracing the entire southern half of the Continent. Lowest, 29·6 ins. and less in a depression off the extreme north-west of our Islands; 29·7 ins. and less in a large shallow system over northern and central Russia; 29·8 ins. and less in a third disturbance over the south of Denmark. Depression in north-west subsequently moving very slowly north-eastwards towards Scotland. Danish disturbance passing eastwards and partially filling up.

## Wednesday, 30th August.

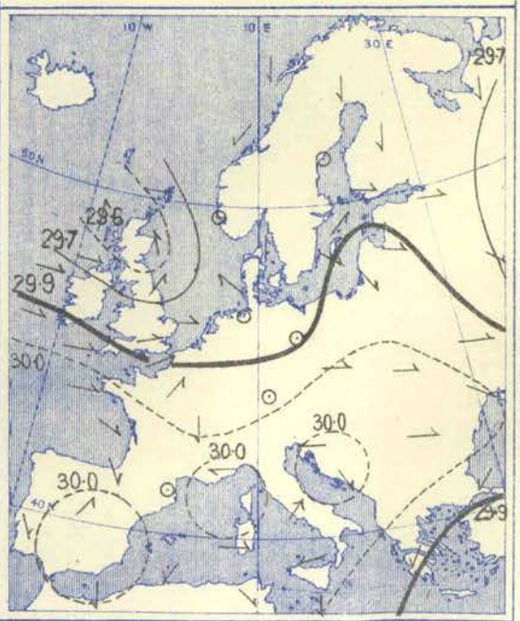
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over central and south-eastern England, and the greater part of the Continent, but cloudy in western France, with rain at Lorient and Le Mans; dull also in Germany and the south of Russia. Showery over the western parts of the United Kingdom generally, and dull in Scotland. Steady rain falling later in Scotland, and showers in many other parts of western Europe; thunderstorms occurring in several parts of England and also at Nice, thunder only at Donaghadee, and lightning at Lyons.

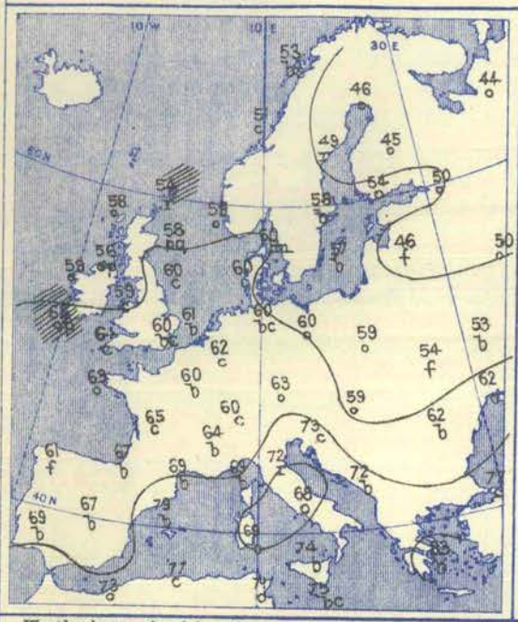
*Temperature* fallen a little in Ireland, but risen in most other parts of western and northern Europe. Morning readings highest, 80° at Barcelona, Algiers and Tunis, 78° at Athens, and 77° at Leghorn and Brindisi; above 70° at the Mediterranean stations generally, and above 65° in the Channel Islands. Lowest, 44° at Archangel, 47° at Haparanda, 48° at St. Petersburg and 50° at Uleaborg, Hernösand and Karlstad. Rising during day to 70° and upwards at several of the English stations, and to 75° in London. Reaching 80° at Paris, and exceeding that point over southern Europe generally, the highest reading of all being 91° at Madrid.

*Wind* light to fresh from the Westward or North-Westward in Ireland, and from the South-Westward over England and the adjacent parts of the Continent; light from the South-Eastward or Eastward in Scotland, and also on the eastern shores of the North Sea. Variable over southern Europe generally, and also over Sweden and Russia. Subsequently veering to the Westward over England, no decided change occurring elsewhere.

*Barometer* highest, 30·0 ins. to 30·1 ins. and upwards in an anticyclone covering the whole of central and southern Europe. Lowest, 29·6 ins. and less in a well-marked depression with its central area immediately over Scotland; 29·8 ins. and less in a large shallow area over northern and central Russia. Scotch depression moving slowly north-eastwards during day and barometer rising over the United Kingdom generally.

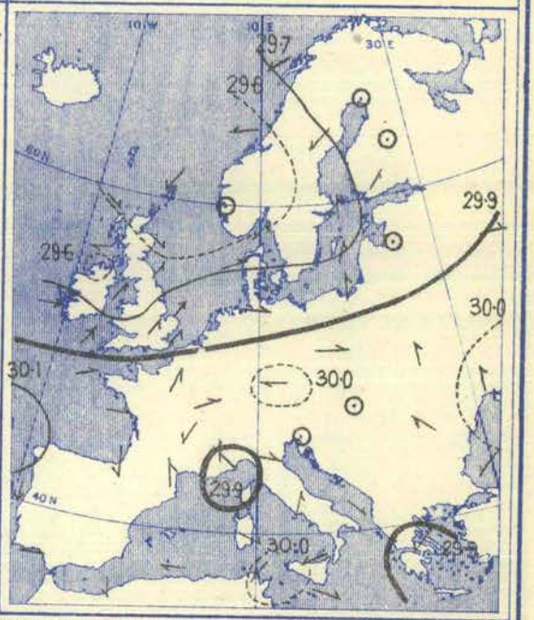
## Thursday, 31st August.

### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.

### Barometer and Wind. — 6 p.m.



*Weather* in morning fair or fine over the greater part of England and the western and southern portions of the Continent, but rainy over northern Italy. Showery in Ireland and rainy in the north of Scotland; dull in many parts of northern Europe, with rain at Faerder and Hernösand. Rain or passing showers falling later in most of the northern and north-western countries—heavily in places; lightning seen in evening or night at several of the English stations.

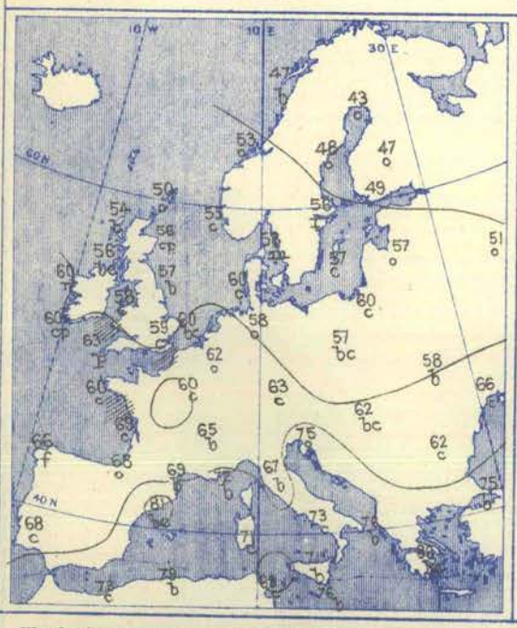
*Temperature* changed little and irregularly. Morning readings highest, 83° at Athens, 79° at Barcelona, and 77° at Algiers, Patras and Constantinople; above 70° at most of the Mediterranean and Adriatic stations. Lowest, 44° at Archangel, 45° at Uleaborg and Kuopio, and 46° at Haparanda; lowest in our Islands, 54° at Sumburgh Head. Thermometer rising during day to 65° and upwards in most parts of the United Kingdom, and to 71° in London. Exceeding 80° in the west of France, and exceeding 85° in many parts of southern Europe, the highest reading of all being 93° at Cagliari.

*Wind* light from the South-Westward or Westward over Great Britain, the Netherlands, Germany, Denmark and the south of Sweden, but Easterly or North-Easterly over Norway and the northern parts of Sweden. Light from the Southward or South-Eastward in the west of Ireland; Easterly or South-Easterly in the west and south of France, and North-Easterly or Northerly over the Spanish Peninsula; variable in Italy; calm over Austria and the south of Russia. Subsequently veering to the Westward in Ireland; no important change occurring elsewhere.

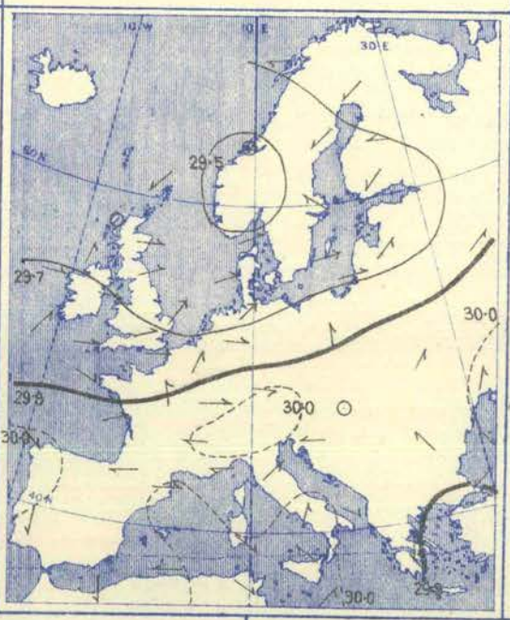
*Barometer* highest, 30·0 ins. and upwards in an anticyclone embracing a considerable portion of southern Europe, but below it in a shallow depression over the Gulf of Genoa and the neighbouring parts of France and Italy. Lowest, 29·6 ins. and less in a shallow depression off the north-east of Scotland; 29·7 ins. and less in two other disturbances—one lying off the west of Ireland, and the other over northern Russia. Depressions off our north-eastern and western coasts subsequently moving eastwards.

## Friday, 1st September.

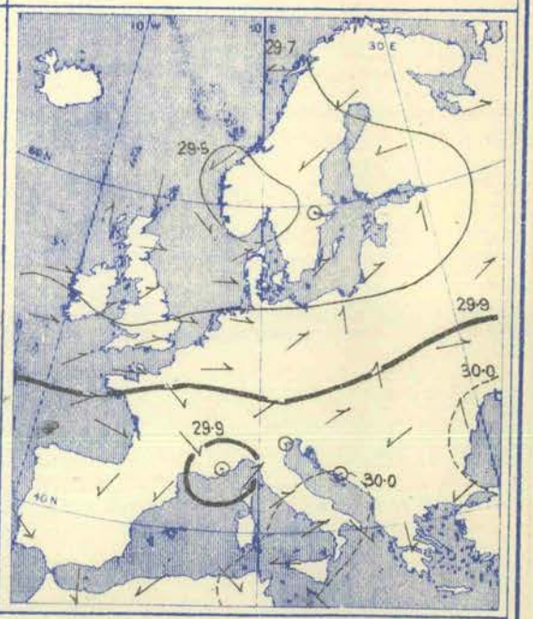
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning cloudy and unsettled over western and northern Europe generally, with passing showers at several of our own western and northern stations, and steady rain at Stockholm and Karlstad. Fine on the east coasts of England and also over central France and southern Europe generally. Rain falling during day in nearly all parts of north-western Europe—rather heavily in places.

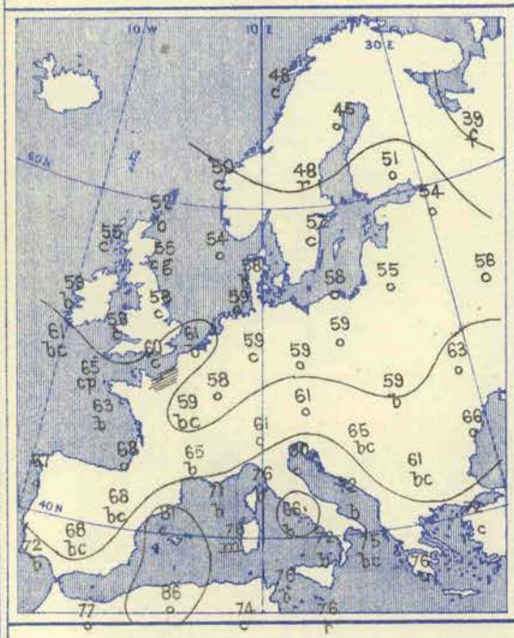
*Temperature* changed rather irregularly, but fallen slightly in most places. Morning readings highest, 81° at Barcelona and Sfax, 80° at Athens and Patras, and 79° at Algiers; above 70° at most of the Mediterranean and Adriatic stations. Lowest, 43° at Haparanda, 44° at Uleaborg, and 47° at Bodö and Kuopio; lowest in our Islands, 50° at Sumburgh Head. Rising during day to 65° and upwards in most parts of the United Kingdom and to 75° in London; exceeding 80° over southern Europe as a whole, the highest readings reported being 94° at Madrid and 91° at Cape Béarn.

*Wind* light to fresh from the South-Westward over western and central Europe generally, but calm in the north of Scotland; Easterly or North-Easterly over the northern parts of Russia and Scandinavia; North-Westerly in the south of Norway. Light and variable over southern Europe generally, but Northerly or North-Westerly in the western parts of the Spanish Peninsula. No important change occurring later.

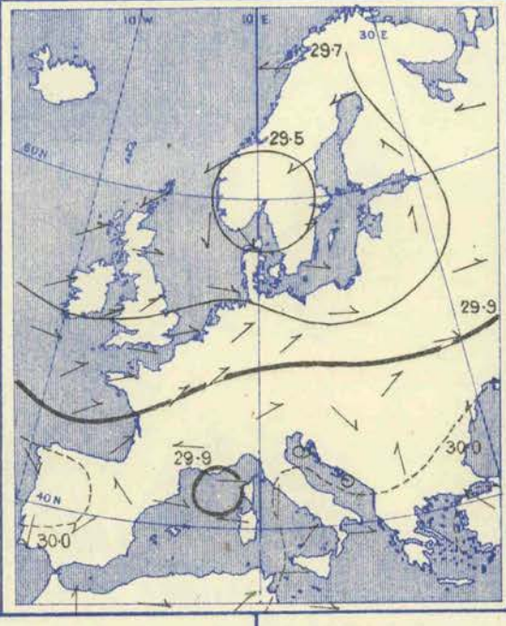
*Barometer* highest, 30·0 ins. and upwards in three areas—one lying over the north-west of Spain, another over Switzerland and its immediate neighbourhood, and a third over southern Italy, Tunis, and the western parts of the Mediterranean. Lowest, 29·5 ins. and less in a shallow depression over the southern parts of Norway. Small secondary disturbances moving eastwards across our Islands during day, but changes in pressure very slight.

## Saturday, 2nd September.

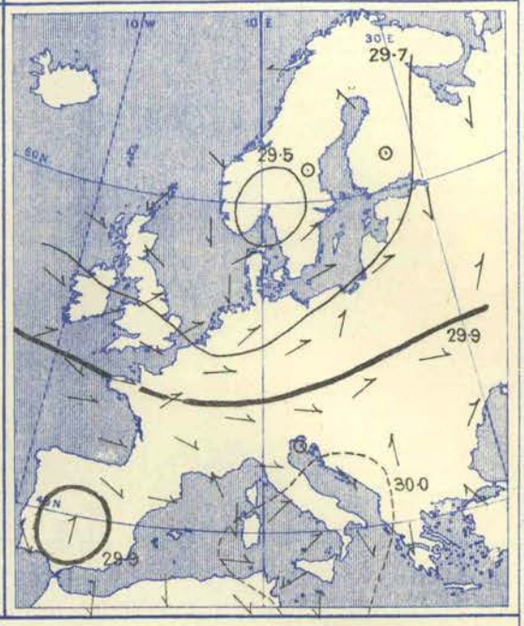
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over western, northern and central Europe generally, with showers at several of our western stations and steady rain at Wick and Leith, as well as at Hernösand and Wiesbaden. Fine over all the more southern parts of the Continent. Showers falling later over the United Kingdom generally, and considerable quantities of rain in some parts of France and Germany; thunderstorms occurring at several of the English and French stations.

*Temperature* changed little and irregularly. Morning readings highest, 86° at Algiers, 81° at Barcelona, 80° at Trieste, and 79° at Sfax; above 70° in most parts of southern Europe. Lowest, 39° at Archangel, 45° at Haparanda, 47° at Uleaborg; lowest in our Islands, 52° at Sumburgh Head. Rising during day to between 65° and 70° in most parts of the United Kingdom, and to 72° in London. Exceeding 80° over southern Europe generally, and reaching 95° at Madrid.

*Wind* South-Westerly or Westerly over the greater part of western and central Europe; light or moderate in force generally, but fresh in the Straits of Dover; light from the Eastward or North-Eastward over the northern parts of Scandinavia. Variable over the southern countries generally, but Northerly or North-Easterly over the Spanish Peninsula. Subsequently veering to the North-Westward on some parts of our own western coasts; no important change occurring elsewhere.

*Barometer* highest, 30·0 ins. and upwards over the north-western parts of Spain, and also over Italy and south-eastern Europe generally. Lowest, 29·5 ins. and less in a large shallow depression over the southern parts of Scandinavia; small secondary systems moving eastwards across our Islands and the North Sea. Depressions, both main and secondary, moving away to the eastward during day, and high-pressure area beginning to spread over the south of our Islands from the Southward.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇉ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the beginning of the week barometrical pressure was high over Scandinavia and also over southern Europe, the weather in our Islands being influenced partly by a depression which skirted the north-west of Scotland, and partly by a secondary disturbance which was formed over England on August 27th, and which subsequently moved away to Denmark and the Baltic. Rain consequently fell in nearly all parts of the United Kingdom, and thunderstorms occurred at several western stations. Over Russia the weather was still affected by the depression noticed at the close of the previous week, the system, however, gradually dispersing.

On August 28th the high-pressure area over northern Europe broke up, while a new depression appeared off our own north-west coasts. For some time the latter system remained almost stationary, but on the 30th and 31st it travelled very slowly in an east-north-easterly direction across Scotland and the North Sea, while for the remainder of the week it hung almost motionless over the southern parts of Scandinavia. During its progress, and after the disturbance had passed away from our area, the weather over western Europe was affected by numerous secondary systems moving from west to east across our Islands and the North Sea. These caused showers in all districts, and occasional thunderstorms, the amount of rain being large at some of our western and northern stations. At the close of the week the barometer was rising slowly, but steadily, over western Europe, and the southern high-pressure system was beginning to spread northwards over our own southern districts.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 206.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 0·0 | ? | 0 | ? | WATERGATE (Emsworth) | 37·8 | ? | 40 | ? |
| STRATHPEFFER SPA | 25·2 | - 1·3 | 26 | 0 | BRIGHTON | 54·8 | + 8.8 | 58 | +11 |
| EDINBURGH | 27·0 | - 4·8 | 28 | - 3 | WORTHING | 48·8 | ? | 52 | ? |
| MORPETH | 31·3 | ? | 33 | ? | BOGNOR | 49·0* | ? | 52* | ? |
| NEWCASTLE-ON-TYNE | 26·5 | ? | 28 | ? | EASTBOURNE | 48·6 | + 6·7 | 52 | + 9 |
| OSWALDKIRK (Yorkshire) | 36·8 | + 8·3 | 38 | + 9 | VENTNOR HOSPITAL | 42·4 | ? | 45 | ? |
| LOWESTOFT | 46·3 | ? | 49 | ? | SOUTHPORT | 43·7 | ? | 46 | ? |
| HOLLESLEY BAY | 55·3 | ? | 58 | ? | COLWYN BAY | | ? | | ? |
| SHEFFIELD | 38·7 | ? | 41 | ? | ABERDOVEY | 48·1* | ? | 51* | ? |
| WORKSOP | 36·8 | + 6·3 | 39 | + 7 | TENBY | 51·5 | +10·3 | 54 | +12 |
| THURCASTON (Leicestershire) | 36·0 | + 1·6 | 38 | + 3 | NEWQUAY | 46·2 | + 3·2 | 49 | + 5 |
| MARGATE | 46·8 | + 7·3 | 50 | + 9 | TORQUAY | 39·7 | - 4·3 | 42 | - 4 |
| WESTBOURNE (Emsworth) | 45·2* | + 2·0 | 48* | + 3 | GUERNSEY | 49·8* | - 3·1 | 53* | 0 |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD. LITH. 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. No. 36.] *Third Series.* WEEK ENDING SATURDAY, SEPTEMBER 9TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 212.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 72 | 43 | 62·0 | 51·1 | 56·3 | 3 above | 100 | +22 | 0 | 0 | 1846 | +354 | 617 | − 6 |
| | 1. SCOTLAND, EAST | 73 | 41 | 64·5 | 49·8 | 56·8 | 3 above | 104 | +12 | 0 | 0 | 2044 | +219 | 669 | + 20 |
| | 2. ENGLAND, N.E. | 79 | 44 | 69·0 | 51·8 | 60·0 | 4 above | 126 | +25 | 0 | 0 | 2293 | +358 | 456 | − 93 |
| | 3. ENGLAND, EAST | 88 | 46 | 72·0 | 55·8 | 63·5 | 6 above | 151 | +39 | 0 | 0 | 2663 | +412 | 421 | −196 |
| | 4. MIDLAND COUNTIES | 86 | 44 | 72·2 | 52·8 | 62·1 | 5 above | 141 | +31 | 0 | 0 | 2676* | +424 | 478 | −141 |
| | 5. ENGLAND, SOUTH | 89 | 47 | 74·3 | 56·6 | 65·0 | 6 above | 161 | +37 | 0 | 0 | 2971 | +536 | 294 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 71 | 40 | 64·3 | 50·8 | 57·3 | 3 above | 106 | +14 | 0 | 0 | 2176 | +272 | 413 | − 49 |
| | 7. ENGLAND, N.W. | 76 | 45 | 66·6 | 54·4 | 60·2 | 3 above | 127 | +20 | 0 | 0 | 2488 | +421 | 313 | −146 |
| | 8. ENGLAND, S.W. | 84 | 37 | 71·6 | 55·7 | 63·3 | 6 above | 149 | +38 | 0 | 0 | 2835* | +555 | 240 | −121 |
| | 9. IRELAND, NORTH | 74 | 40 | 65·8 | 51·2 | 58·1 | 3 above | 113 | +15 | 0 | 0 | 2344 | +323 | 323 | − 72 |
| | 10. IRELAND, SOUTH | 73 | 41 | 67·4 | 53·9 | 60·3 | 3 above | 128 | +20 | 0 | 0 | 2727 | +447 | 245 | − 54 |
| | —CHANNEL ISLANDS— | 79 | 56 | 71·2 | 61·6 | 66·2 | 6 above | 169 | +43 | 0 | 0 | 3286 | +734 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 212.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 6 | 8 | 2 less | 145 | −18 | 28·0 | − 2·9 | 29 | + 4 | 31 | + 8 | 1037 | +157 | 30 | + 4 |
| | 1. SCOTLAND, EAST | 4 | 2 | 5 less | 133 | 0 | 21·0 | + 0·3 | 28 | − 2 | 30 | − 2 | 1100 | + 72 | 33 | + 3 |
| | 2. ENGLAND, N.E. | 1 | 1 | 5 less | 119 | − 6 | 15·4 | − 1·5 | 41 | +11 | 44 | +13 | 1078 | + 84 | 33 | + 3 |
| | 3. ENGLAND, EAST | 3 | 4 | 2 less | 107 | −14 | 13·6 | − 3·2 | 46 | + 9 | 50 | +10 | 1500 | +244 | 44 | + 7 |
| | 4. MIDLAND COUNTIES | 3 | 12 | 6 more | 106 | −13 | 16·9* | − 1·4 | 42 | + 9 | 46 | +11 | 1334* | +284 | 42 | + 9 |
| | 5. ENGLAND, SOUTH | 2 | 8 | 2 more | 91 | −23 | 14·5 | − 3·5 | 58 | +16 | 64 | +19 | 1615 | +329 | 48 | +10 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 4 | 3 | 7 less | 142 | + 2 | 30·5 | − 1·2 | 32 | 0 | 35 | 0 | 1124 | + 37 | 34 | + 2 |
| | 7. ENGLAND, N.W. | 3 | 3 | 5 less | 128 | − 1 | 22·2 | + 0·5 | 43 | + 9 | 46 | +11 | 1317 | +230 | 39 | + 6 |
| | 8. ENGLAND, S.W. | 2 | 2 | 6 less | 115 | −14 | 24·6* | − 0·1 | 57 | +17 | 62 | +20 | 1581 | +265 | 48 | + 8 |
| | 9. IRELAND, NORTH | 4 | 4 | 4 less | 149 | − 4 | 23·7 | − 0·5 | 35 | + 8 | 38 | + 9 | 1151 | +153 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 3 | 2 | 6 less | 126 | −12 | 27·8 | + 2·2 | 37 | + 5 | 41 | + 7 | 1302 | +175 | 39 | + 5 |
| | — CHANNEL ISLANDS— | 2 | 2 | 4 less | 108 | −23 | 17·0 | − 2·8 | 62 | + 9 | 68 | +14 | 1732 | +281 | 55 | + 9 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was fair or fine in all except our most northern and north-western districts during the earlier days of the week, but subsequently became very unsettled for a time, with considerable falls of rain and thunderstorms in places. Towards the end of the period the conditions had again become fair and dry over England and the south of Ireland.

*Temperature* continued above the mean, the excess ranging from 3° in Ireland, Scotland, and the north-west of England, to as much as 6° in England E., S. and S.W., and the Channel Islands. The highest of the maxima were recorded on the 5th over England, earlier in the week in Ireland, and on irregular dates in Scotland ; they varied from 89° in England S. and 88° in England E., to 72° in Scotland N. and to 71° in Scotland W. The lowest of the minima, which were registered on somewhat irregular dates, ranged from 37° in England S.W. (at Llandovery), and 40° in Scotland W. and Ireland N. to 47° in England S., and to 56° in the Channel Islands.

*Rainfall* was less than the mean in most districts, but more in England S. and the Midland Counties ; in the latter district the fall was twice as large as the normal value. During a severe thunderstorm which passed over the Metropolis on Wednesday as much as an inch of rain fell at Brixton in about half-an-hour.

*Bright Sunshine* again exceeded the mean amount in nearly all districts ; the percentage of the possible duration ranged from 68 in the Channel Islands, 64 in England S., and 62 in England S.W. to between 41 and 38 in Ireland, and to between 35 and 30 in Scotland.

*Barometer and Wind.*—At the commencement of the week an anticyclone covered France and the south of our Islands, and the winds were light from the Westward and South-Westward. This system, however, soon moved away eastwards, and a rather important depression, followed by a shallow disturbance which appeared over our south-west coasts, skirted the west of Ireland and Scotland. By the 6th a new anticyclone had commenced to show itself in the west, while a large "hollow," accompanied by light variable winds, was gradually formed over England and the greater part of France. Towards the end of the week the anticyclone in the west extended eastwards until it covered Ireland and the greater part of England, and the winds became moderate from the Northward and North-Westward.

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913 | 70 9 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 211 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 61 | 43 | 56·7 | 48·0 | 52·1 | + 0·8 | 71 | 0 | 7 | 0·93 | + 0·13 | * | * | * | * |
| | Stornoway | 63 | 46 | 60·9 | 49·7 | 55·0 | + 2·9 | 91 | 0 | 7 | 0·89 | - 0·01 | 27·9 | +2·1 | 30 | +3 |
| | Wick | 67 | 47 | 62·0 | 50·3 | 55·9 | + 3·1 | 97 | 0 | 5 | 0·28 | - 0·32 | * | * | * | * |
| | Lairg Ⓢ | 72 | 50 | 68·4 | 53·1 | 60·4 | + 7·3 | 129 | 0 | 7 | 0·48 | - 0·13 | * | * | * | * |
| | Glencarron Ⓢ | 66 | 48 | 60·1 | 51·0 | 55·3 | + 2·7 | 93 | 0 | 7 | 1·46 | - 0·14 | * | * | * | * |
| | Fort Augustus Ⓢ | 70 | 48 | 64·0 | 51·9 | 57·7 | + 3·1 | 110 | 0 | 4 | 0·42 | - 0·40 | 27·3 | +9·3 | 29 | +10 |
| | Fort William Ⓢ | 65 | 51 | 62·1 | 53·4 | 57·5 | + 2·4 | 109 | 0 | 5 | 1·08 | - 0·42 | 25·9 | +4·7 | 28 | + 6 |
| 1. SCOTLAND E. | Nairn | 72 | 48 | 65·4 | 50·9 | 57·8 | + 3·4 | 111 | 0 | 5 | 0·33 | - 0·19 | * | * | * | * |
| | Aberdeen | 68 | 44 | 64·3 | 50·3 | 57·0 | + 2·9 | 105 | 0 | 6 | 0·19 | - 0·43 | 36·1 | + 3·9 | 39 | +5 |
| | Braemar Ⓢ | 63 | 41 | 60·0 | 47·4 | 53·4 | + 2·6 | 80 | 0 | 4 | 0·12 | - 0·77 | 28·7† | + 2·9† | 31† | + 3† |
| | Ochtertyre Ⓢ | 68 | 42 | 65·3 | 48·3 | 56·4 | + 2·0 | 101 | 0 | 3 | 0·21 | - 0·52 | * | * | * | * |
| | Leith | 73 | 49 | 67·3 | 52·4 | 59·5 | + 3·7 | 123 | 0 | 3 | 0·05 | - 0·45 | * | * | * | * |
| | Marchmont Ⓢ | 71 | 45 | 64·7 | 49·3 | 56·6 | + 3·0 | 102 | 0 | 1 | 0·05 | - 0·65 | 25·5 | - 5·8 | 27 | - 5 |
| 2. ENGLAND, N.E. | Alnwick Castle | 76 | 44 | 68·9 | 49·7 | 58·8 | + 4·5 | 118 | 0 | 1 | 0·01 | - 0·59 | * | * | * | * |
| | Durham | 77 | 44 | 70·2 | 50·8 | 59·8 | + 4·3 | 125 | 0 | 2 | 0·09 | - 0·41 | 43·5 | +13·5 | 47 | +15 |
| | Shields | 74 | 47 | 68·4 | 52·1 | 59·3 | + 4·2 | 125 | 0 | 0 | — | - 0·54 | * | * | * | * |
| | Scarborough Ⓜ | 79 | 47 | 63·0 | 51·0 | 59·6 | + 3·4 | 123 | 0 | 1 | 0.03 | - 0·51 | ? | ? | ? | ? |
| | Spurn Head | 79 | 53 | 68·6 | 56·1 | 62·1 | + 4·5 | 141 | 0 | 2 | 0·15 | - 0·24 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | | | | | | | | | | | | | | | |
| | Yarmouth | 72 | 50 | 67·9 | 57·4 | 62·4 | + 4·4 | 143 | 0 | 4 | 0·50 | - 0·05 | * | * | * | * |
| | Geldeston | 87 | 47 | 73·8 | 54·4 | 63·6 | + 5·8 | 151 | 0 | 3 | 0·37 | - 0·12 | 43·6 | + 4·5 | 47 | + 5 |
| | Cambridge | 88 | 47 | 75·6 | 55·1 | 64·9 | + 6·6 | 160 | 0 | 2 | 0·33 | - 0·15 | 47·5 | +10·0 | 52 | +12 |
| | Felixstowe | 76 | 50 | 70·4 | 57·9 | 63·9 | + 6·0 | 153 | 0 | 3 | 0·19 | ? | 43·5 | ? | 47 | ? |
| | Rothamsted | 84 | 46 | 72·4 | 54·2 | 62·9 | + 6·0 | 146 | 0 | 2 | 0·42 | - 0·12 | 47·5 | +10·4 | 52 | +12 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 81 | 47 | 70·7 | 52·4 | 61·1 | + 4·5 | 134 | 0 | 2 | 0·50 | + 0·01 | * | * | * | * |
| | Loughborough | 82 | 45 | 73·6 | 52·7 | 62·7 | + 4·9 | 145 | 0 | 3 | 0·45 | - 0·09 | * | * | * | * |
| | Stamford (Duddington) | 86 | 46 | 73·1 | 53·1 | 62·6 | + 4·5 | 144 | 0 | 3 | 2·06 | + 1·51 | * | * | * | * |
| | Cheadle Ⓜ | 77 | 47 | 69·0 | 52·4 | 60·3 | + 5·5 | 128 | 0 | 2 | 0·93 | + 0·15 | * | * | * | * |
| | Shirley (near Solihull) | 80 | 46 | 72·3 | 51·8 | 61·6 | + 4·5 | 137 | 0 | 5 | 1·23 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 82 | 47 | 71·7 | 50·7 | 60·7 | + 5·3 | 131 | 0 | 2 | 1·86 | + 1·27 | 39·7 | + 4·8 | 43 | + 6 |
| | Hereford (Belmont) Ⓜ | 84 | 46 | 73·0 | 52·0 | 62·0 | + 4·5 | 140 | 0 | 3 | 1·38 | + 0·84 | * | * | * | * |
| | Cirencester | 82 | 44 | 72·0 | 53·6 | 62·4 | + 6·5 | 143 | 0 | 3 | 1·46 | + 0·84 | 50·5 | +14·2 | 55 | +16 |
| | Oxford | 85 | 50 | 74·6 | 56·6 | 65·2 | + 7·1 | 162 | 0 | 3 | 0·68 | + 0·18 | 50·8 | +12·8 | 55 | +15 |
| 5. ENGLAND, S. | London | 89 | 48 | 78·1 | 56·1 | 66·6 | + 7·0 | 172 | 0 | 2 | 1·16 | + 0·66 | 46·2† | +12·2† | 50† | + 14† |
| | Cranley Ⓜ | 84 | 47 | 75·9 | 54·1 | 64·5 | + 5·6 | 158 | 0 | 2 | 0·68 | ? | * | * | * | * |
| | Dungeness | 78 | 50 | 73·1 | 58·1 | 65·2 | + 5·5 | 162 | 0 | 3 | 0·10 | - 0·40 | * | * | * | * |
| | Hastings (St. Leonards) | 79 | 52 | 73·0 | 58·6 | 65·3 | + 6·0 | 163 | 0 | 1 | 0·01 | - 0·50 | 59·6 | +17·6 | 65 | +20 |
| | Southampton | 86 | 51 | 76·5 | 56·9 | 66·2 | + 6·7 | 169 | 0 | 3 | 1·55 | + 0·97 | 54·4 | +11·4 | 60 | +15 |
| | Portland Bill | 74 | 51 | 70·4 | 56·9 | 63·3 | + 4·0 | 149 | 0 | 2 | 1·14 | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 82 | 47 | 72·9 | 55·5 | 63·8 | + 6·2 | 153 | 0 | 2 | 0·86 | + 0·17 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 64 | 51 | 62·4 | 53·9 | 58·0 | + 3·2 | 112 | 0 | 7 | 0·95 | - 0·42 | * | * | * | * |
| | Glasgow | 68 | 46 | 63·1 | 51·3 | 56·9 | + 2·5 | 104 | 0 | 3 | 0·23 | - 0·67 | 23·0 | - 4·7 | 25 | - 3 |
| | Glenlee Ⓢ | 71 | 40 | 65·1 | 46·3 | 55·3 | + 1·2 | 93 | 0 | 3 | 0·07 | - 0·97 | * | * | * | * |
| | Douglas (Isle of Man) | 70 | 46 | 66·6 | 51·8 | 58·8 | + 3·8 | 118 | 0 | 1 | 0·03 | - 0·84 | 40·5 | + 5·2 | 44 | + 7 |
| 7. ENGLAND, N.W. | Stonyhurst | 72 | 45 | 65·9 | 51·7 | 58·3 | + 2·7 | 114 | 0 | 3 | 0·17 | - 0·98 | 38·7 | + 7·7 | 42 | + 9 |
| | Blackpool Ⓜ | 75 | ?50 | 67·4 | 55·2 | 61·0 | + 4·1 | 133 | 0 | 1 | 0·03 | - 0·72 | 34·5 | + 2·6 | 38 | + 5 |
| | Manchester (Prestwich) | 76 | 46 | 68·3 | 51·6 | 59·6 | + 3·5 | 123 | 0 | 3 | 0·19 | - 0·64 | 32·7 | ? | 36 | ? |
| | Liverpool Obsy. (Bidston) | 75 | 52 | 66·0 | 55·7 | 60·6 | + 3·0 | 130 | 0 | 3 | 0·30 | - 0·35 | 47·7 | ? | 52 | ? |
| | Llandudno Ⓜ | 76 | 52 | 67·7 | 56·3 | 61·7 | + 3·5 | 138 | 0 | 3 | 1·00 | + 0·38 | 48·4 | +16·5 | 53 | +19 |
| | Holyhead | 69 | 53 | 64·1 | 56·0 | 59·9 | + 2·3 | 125 | 0 | 3 | 0·30 | - 0·40 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 81 | 37 | 75·0 | 49·1 | 61·4 | + 4·3 | 136 | 0 | 3 | 0·14 | - 0·86 | * | * | * | * |
| | Pembroke | 69 | ?52 | 66·3 | 58·1 | 62·0 | + 4·4 | 140 | 0 | 2 | 0·02 | - 0·66 | 49·7 | + 9·8 | 54 | +13 |
| | Clifton | 80 | 52 | 73·3 | 58·6 | 65·6 | + 8·0 | 165 | 0 | 1 | 0·20 | - 0·50 | * | * | * | * |
| | Arlington (N. Devon) | 80 | 48 | 72·0 | 54·6 | 62·9 | + 6·4 | 146 | 0 | 4 | 0·14 | - 0·92 | * | * | * | * |
| | Cullompton Ⓜ | 84 | 47 | 75·0 | 54·0 | 64·0 | + 6·1 | 154 | 0 | 4 | 0·67 | + 0·04 | 52·7 | +14·7 | 58 | +18 |
| | Falmouth | 72 | 55 | 68·9 | 58·5 | 63·5 | + 5·4 | 151 | 0 | 1 | 0·10 | - 0·79 | 64·5 | +22·5 | 71 | +27 |
| | Plymouth | 74 | 51 | 70·7 | 57·1 | 63·6 | + 4·6 | 151 | 0 | 1 | 0·19 | - 0·49 | 56·4 | +16·5 | 62 | +20 |
| 9. IRELAND, N. | Malin Head | 70 | 53 | 63·0 | 54·7 | 58·8 | + 3·0 | 118 | 0 | 5 | 0·38 | ? | * | * | * | * |
| | Londonderry | 74 | 46 | 69·5 | 50·7 | 59·7 | + 4·1 | 124 | 0 | 4 | 0·45 | - 0·37 | * | * | * | * |
| | Edenfel (Omagh) | 69 | 41 | 64·7 | 47·9 | 55·9 | + 1·8 | 97 | 0 | 2 | 0·62 | - 0·16 | * | * | * | * |
| | Belmullet | 69 | 49 | 63·6 | 54·4 | 58·8 | + 2·0 | 118 | 0 | 7 | 0·42 | - 0·52 | * | * | * | * |
| | Markree Castle | 72 | 40 | 66·9 | 47·0 | 56·5 | + 2·0 | 102 | 0 | 4 | 0·46 | - 0·42 | 33·4 | + 6·5 | 36 | + 8 |
| | Armagh | 71 | 47 | 67·3 | 52·3 | 59·4 | + 4·6 | 122 | 0 | 3 | 0·17 | - 0·48 | 35·7 | + 9·1 | 39 | +10 |
| | Donaghadee | 72 | 47 | 65·4 | 51·1 | 57·9 | + 2·3 | 111 | 0 | 3 | 0·17 | - 0·50 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 72 | 47 | 67·8 | 54·4 | 60·8 | + 4·0 | 132 | 0 | 3 | 0·17 | - 0·33 | 37·3 | + 3·2 | 41 | + 5 |
| | Parsonstown | 71 | 44 | 67·7 | 52·0 | 59·5 | + 3·9 | 123 | 0 | 2 | 0·21 | - 0·44 | 35·9 | + 7·7 | 39 | + 8 |
| | Kilkenny | 72 | 41 | 68·1 | 52·1 | 59·7 | + 2·6 | 124 | 0 | 3 | 0·13 | - 0·65 | * | * | * | * |
| | Roche's Point | 68 | 51 | 67·1 | 57·1 | 61·9 | + 4·6 | 139 | 0 | 2 | 0·17 | - 0·72 | * | * | * | * |
| | Valencia | 69 | 45 | 66·1 | 55·3 | 60·4 | + 2·6 | 129 | 0 | 4 | 0·22 | - 0·89 | 38·3 | + 5·5 | 42 | + 7 |
| | Killarney | 72 | 42 | 67·3 | 53·8 | 60·2 | + 2·7 | 127 | 0 | 3 | 0·46 | ? | * | * | * | * |
| | Foynes | 73 | 46 | 67·4 | 52·5 | 59·6 | + 2·9 | 123 | 0 | 2 | 0·14 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 73 | 58 | 69·3 | 61·3 | 65·1 | + 6·3 | 162 | 0 | 1 | 0·02 | - 0·60 | 65·1 | ? | 72 | ? |
| | Jersey | 79 | 56 | 73·1 | 61.9 | 67·2 | + 6·0 | 176 | 0 | 2 | 0·28 | - 0·28 | 62·1 | +10·9 | 68 | +15 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

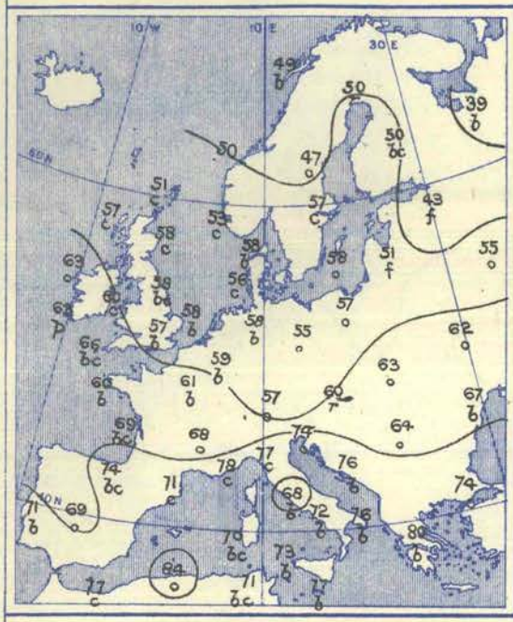
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observation made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 3rd September.

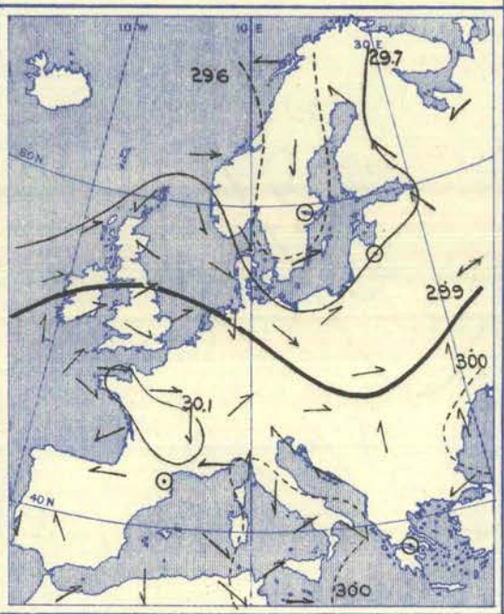
### Temperature and Weather.

8 a.m.

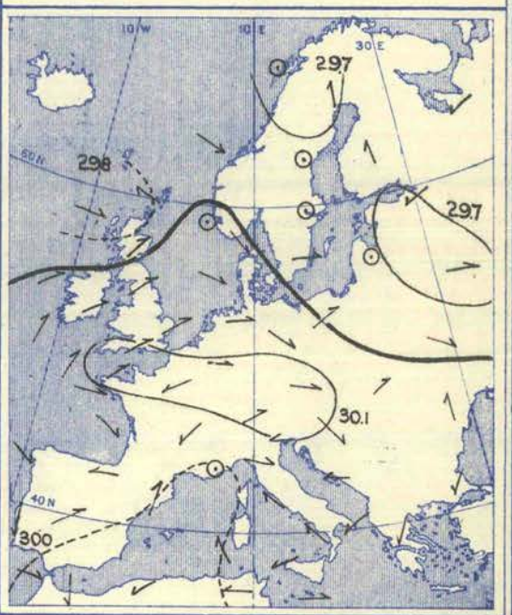


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over England and the western and southern parts of the Continent generally, but cloudy or dull in the south of France. Cloudy in Ireland and Scotland, with rain at Leith and passing showers at Malin Head and Valencia (Ireland). Dull over northern and central Europe, with fog over the Baltic and the Gulf of Finland and rain at Vienna. Slight showers falling later at several of our own western and northern stations, and large amounts of rain in Scandinavia, Russia and Austria; thunderstorms occurring at Nemours and Oran.

*Temperature* risen in the west and north of our Islands and also in France; changed irregularly elsewhere. Morning readings highest, 84° at Algiers, 80° at Athens, and 78° at Nice and Toulon; above 70° over southern Europe generally. Lowest, 39° at Archangel, 47° at Hernösand, 48° at St. Petersburg, and 49° at Bodö. Rising during day to 70° and upwards in many parts of England and Ireland, and to 77° in London. Exceeding 85° over a considerable portion of southern Europe, and reaching 95° at San Fernando.

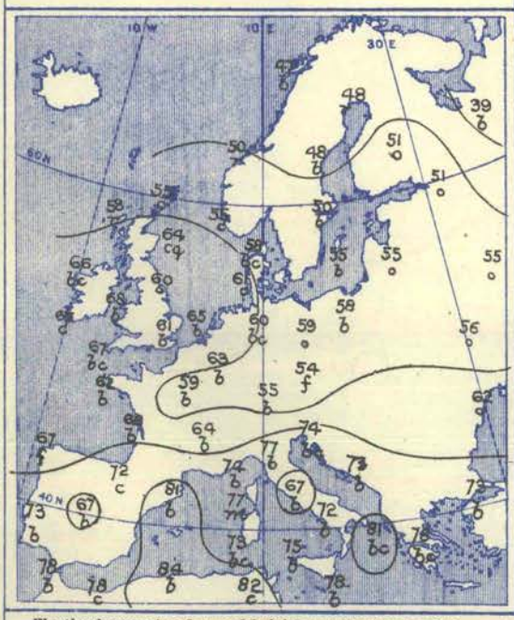
*Wind* light to moderate from the South-Westward over the greater part of the United Kingdom, but North-Westerly in the south of England, Northerly or North-Westerly over Sweden, the south of Norway, Denmark and north Germany; Southerly at most of the Russian stations. Light from the Eastward or North-Eastward in the southern parts of France; variable in Spain and Italy. No important change occurring during day.

*Barometer* highest, 30·0 ins. and upwards in an anticyclone lying over the south of England and the greater part of France, south Germany, and the Spanish Peninsula, as well as in two other systems—one lying over Italy and the adjacent parts of the Mediterranean, and the other over the Black Sea and the south of Russia. Lowest, 29·6 ins. and less in a large shallow depression over Sweden. Depression subsequently moving north-eastwards, but new disturbance appearing off the north of Scotland in evening.

## Monday, 4th September.

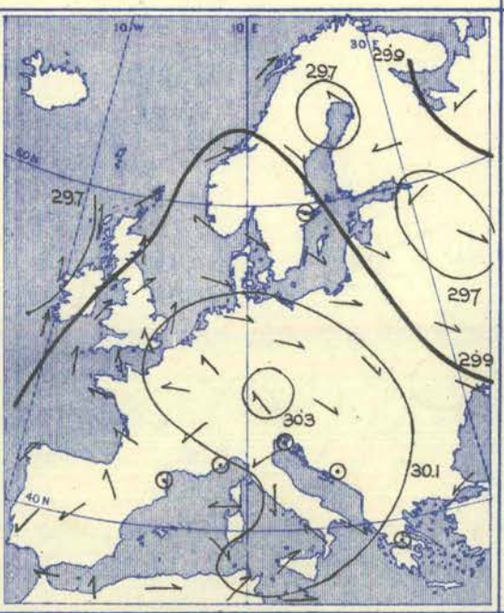
### Temperature and Weather.

8 a.m.

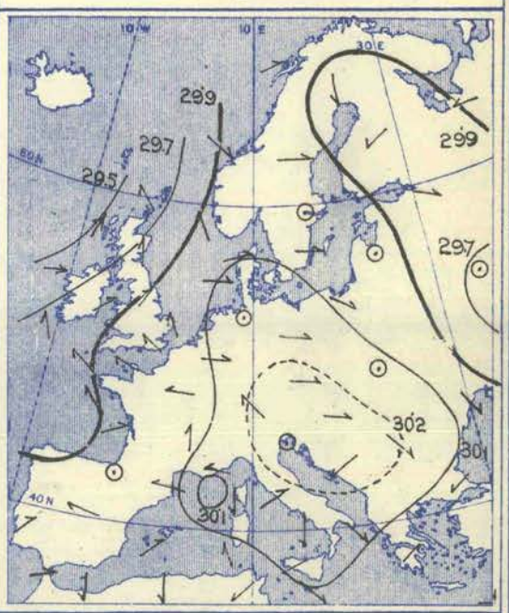


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine and bright over England and the western, central, and southern parts of the Continent generally. Cloudy or dull at many of the Irish and Scotch stations, as well as in the west of Norway, with rain at Stornoway. Dull over Lapland and Russia, with rain at Haparanda, and also at Nicolaieff. Rain falling later over nearly the whole of Ireland, Scotland, and the northern parts of Scandinavia—rather heavily at Stornoway and Christiansund. Lightning seen at Biarritz and Perpignan, and thunderstorms occurring at Nemours and Aumale.

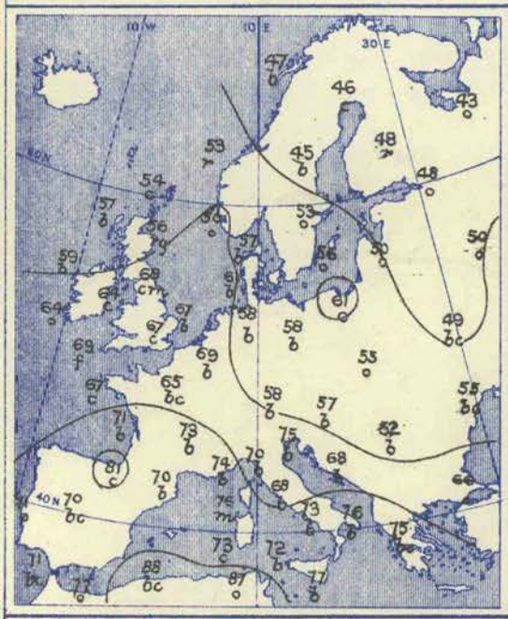
*Temperature* risen in our Islands, but fallen in most other countries. Morning readings highest, 84° at Algiers, 82° at La Calle, and 81° at Barcelona, Brindisi, and Sfax; above 70° in most parts of southern Europe, and above 65° over the English Channel, and also in the west of Ireland. Lowest, 39° at Archangel, 47° at Bodö and Karlstad, and 48° at Haparanda, Hernösand, and Helsingfors. Rising during day to between 75° and 80° in many parts of England, and to 82° in London; exceeding 85° over southern Europe generally, and reaching 93° at Palma and Palermo.

*Wind* light from the Eastward (North-East to South-East) over the greater part of France, Spain, and northern Italy, and from the South-Eastward over England. Southerly in Ireland and Scotland, and fresh or strong in force in the extreme west. Westerly or North-Westerly over Sweden, Denmark, Russia, Austria, and the greater part of Germany, but variable in south Germany. Calm in Greece; variable over southern Italy. Subsequently increasing to a moderate gale from the Southward in the Hebrides; becoming very variable in the west of France.

*Barometer* highest, 30·3 ins. and upwards over south Germany; 30·0 ins. and upwards in an anticyclone embracing nearly the whole of central and southern Europe, and also England and the North Sea. Lowest, 29·7 ins. and less in a depression lying off our own extreme west coasts, and also in two other systems—one lying over Lapland, and the other over central Russia. Depression off our west coasts subsequently moving northwards, but barometer falling in most parts of western Europe.

## Tuesday, 5th September.

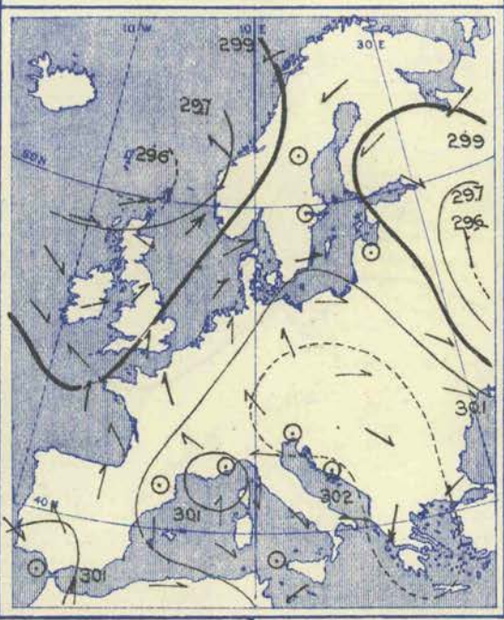
### Temperature and Weather. 8 a.m.

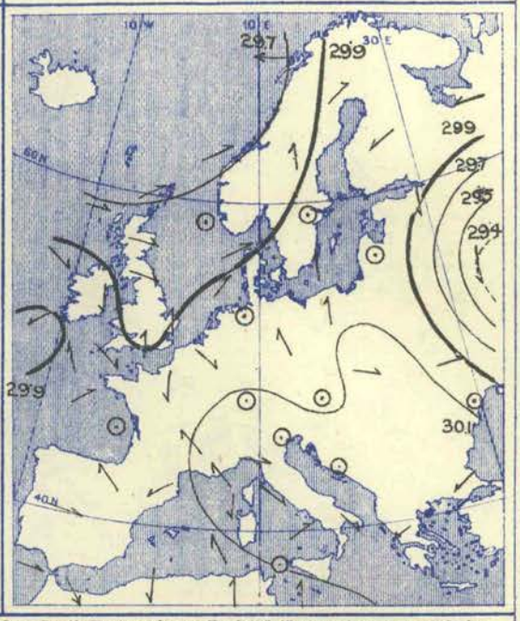


*Weather* in morning cloudy or dull over the greater part of our Islands and also in the west of Norway, with rain in the north of Ireland and the east of Scotland, as well as at Christiansund. Fine over our extreme north and north-west coasts and also over central and southern Europe generally; dull in Russia and the south of Sweden, with rain at Kuopio. Slight rain falling later in many parts of the United Kingdom and larger quantities at some of the western Continental stations; thunder and lightning occurring in several parts of England, France and the Netherlands.

*Temperature* fallen in Ireland and Scotland, but risen in most other countries. Morning readings highest, 88° at Algiers, 87° at La Calle, 84° at Bilbao and 82° at Sfax; above 70° over southern Europe generally and also in the Channel Islands. Lowest, 43° at Archangel, 45° at Hernösand, 46° at Helsingfors, and 47° at Bodö. Rising during day to 80° and upwards over the inland parts of England generally and to 89° in London; exceeding 90° in several parts of France and southern Europe, and reaching 97° at Biarritz, and 98° at Bordeaux.

### Barometer and Wind. 8 a.m. and 6 p.m.





*Wind* light from the Southward or South-Eastward over England, France, Germany, and the Netherlands, from the Westward in Wales and Scotland, and from the North-Westward in Ireland. South-Westerly in Denmark and the south of Scandinavia, and South-Easterly or Easterly in the west of Norway. Light from the North-Westward in Russia, calm in Austria and also in the extreme south of France; variable over Italy and the Spanish Peninsula. No important change occurring over Western Europe during day.

*Barometer* highest, 30·2 ins. and upwards over south Germany, Austria, Greece and the Balkan Peninsula; 30·1 ins. and upwards in an anticyclone covering the greater part of central and southern Europe. Lowest, 29·6 ins. and less in two depressions, one lying off the west of Scotland and the other over central Russia; shallow secondary disturbance reported over the west of our Islands. Depression off our northern coasts, subsequently moving north-eastwards; disturbance over Russia growing deeper. Secondary system passing eastwards across England.

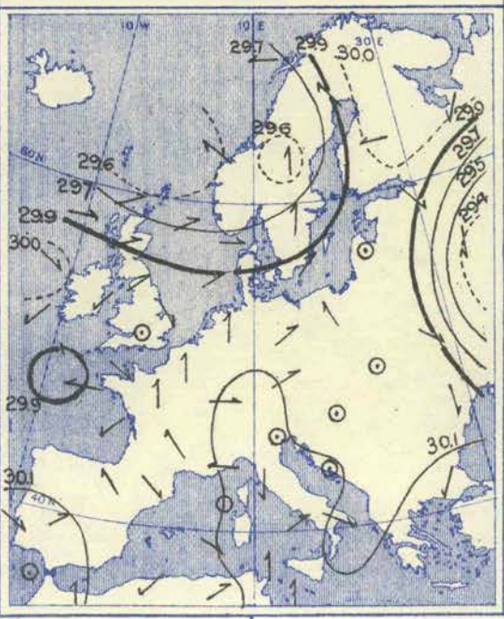
## Wednesday, 6th September.

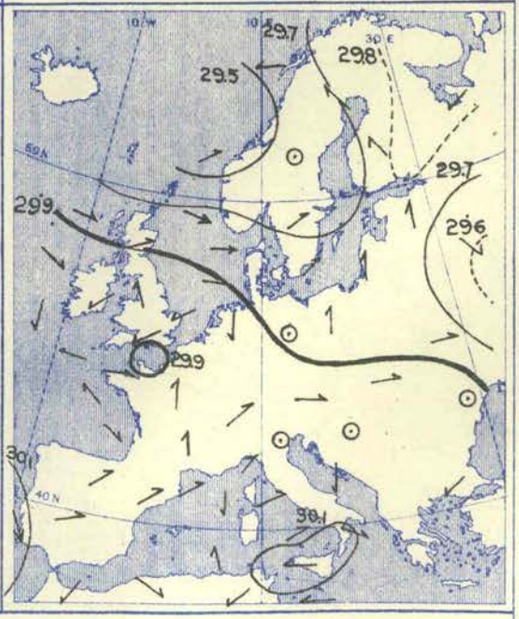
### Temperature and Weather. 8 a.m.

*Weather* in morning fine over the northern parts of our Islands generally, as well as over the south of Norway, Austria, and the greater parts of southern Europe. Cloudy elsewhere, with rain at some of the English stations, and a thunderstorm at Portland Bill; rain falling also at Paris and Wiesbaden, and in the Shetlands and the northern parts of Scandinavia. Thunderstorms occurring later in several parts of England and Belgium, with very heavy rain in London and at Brussels; at Brixton 1·0 in. fell in less than half-an-hour.

*Temperature* fallen in most places. Morning readings highest, 83° at La Calle, 81° at Barcelona and Sfax, and 80° at Algiers; above 70° in many parts of southern Europe, and just touching that point in London. Lowest, 40° at Archangel, 43° at St. Petersburg, 44° at Kuopio, and 46° at Haparanda and Uleaborg; lowest in our Islands, 53° at Sumburgh Head. Rising during day to 75° and upwards at several of the English stations, and to 80° in London. Exceeding 85° in many parts of France, the Netherlands, and southern Europe, the highest readings of all being 93° at Lyons, and 92° at Limoges.

### Barometer and Wind. 8 a.m. and 6 p.m.





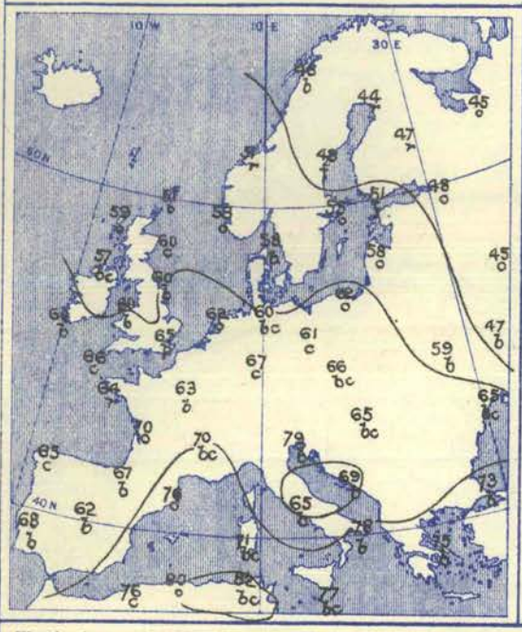
*Wind* light and very variable over England, France, and the Netherlands; Northerly or North-Easterly in the south of Ireland. Light to moderate from the Westward or South-Westward over the northern parts of the United Kingdom, and also over Denmark and the south of Scandinavia; Southerly in Sweden; South-Easterly or Easterly in the north of Scandinavia. Light from the Northward or North-Westward in Russia; calm in Austria; variable in Italy and Greece. No important change occurring during day.

*Barometer* highest, 30·0 ins. to 30·1 ins. and upwards in an anticyclone covering the greater part of central and southern Europe, and also in another system spreading from the Atlantic over the west of Ireland. Lowest, 29·6 ins. and less in a large depression lying off the west of Norway, and also in a smaller system over central Sweden. Several small and very shallow depressions reported over England, France, and the Bay of Biscay, where the distribution of pressure was consequently very irregular.

## Thursday, 7th September.

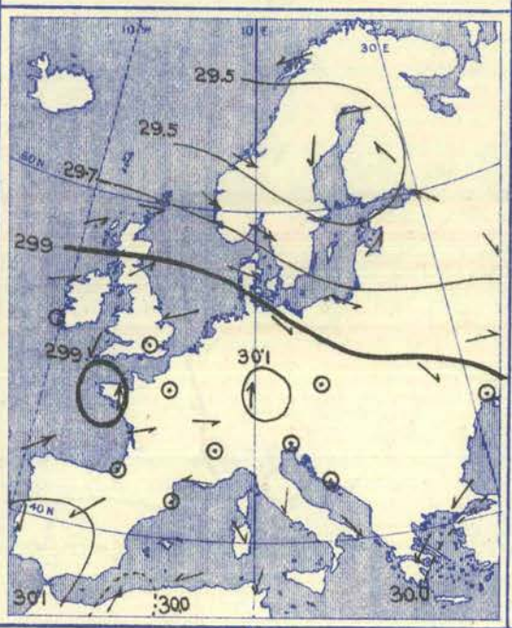
### Temperature and Weather.

8 a.m.

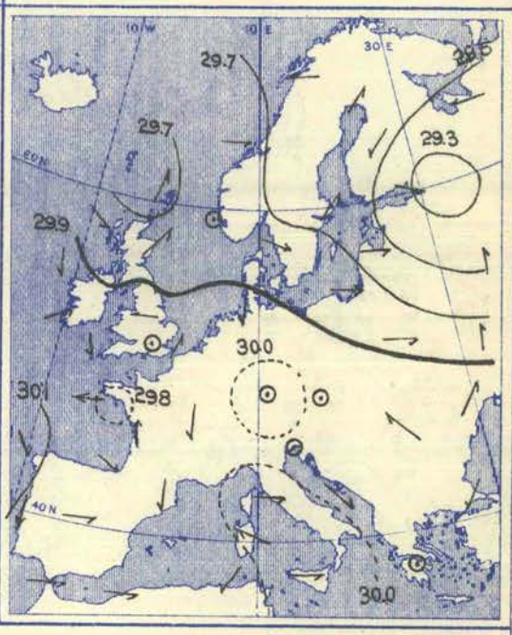


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning dull and unsettled over central England, and also in the west of France, with rain in several places. Fair or fine in most other parts of Europe, but dull in the north of Scotland and the west of Norway, as well as in most parts of Sweden and northern and central Russia; fog reported over the Gulf of Finland, and rain at Christiansund, Haparanda, Ulcaborg, and Kuopio. Rain falling later in many parts of western, northern, and central Europe—heavily at some of the French stations; thunder and lightning occurring in several parts of England and France.

*Temperature* fallen in most places. Morning readings highest, 82° at La Calle, 81° at Sfax, and 80° at Algiers; above 70° at most of the Mediterranean and Adriatic stations, and above 65° on the south coasts of England. Lowest, 44° at Haparanda and Ulcaborg, and 45° at Archangel and Moscow; lowest in our Islands, 51° at Sumburgh Head, and 52° at Parsonstown. Rising during day to 70° and upwards in many parts of England and Ireland, and to 78° at Dungeness; exceeding 85° over southern Europe generally, and reaching 90° at Florence and Palermo.

*Wind* light from the Northward (North-East to North-West) over England and the south of Ireland; calm or Southerly in France. Light from the South-Westward in the northern parts of our Islands; light to moderate from the Westward or North-Westward over Denmark and north Germany, and strong from the same quarters in the south of Scandinavia, with a gale at Wisby. Calm in Austria; variable in Italy; Northerly or North-Easterly over the Spanish Peninsula. Subsequently veering to the North-Westward on our own extreme north and north-west coasts; wind moderating in the south of Scandinavia.

*Barometer* highest, 30·1 ins. and upwards over the southern parts of the Spanish Peninsula; 30·0 ins. and upwards over southern Europe generally, and also over the south of Ireland. Lowest, 7·5 ins. and less in a large shallow depression over Finland and the northern and central parts of Scandinavia; 29·9 ins. and less in a small disturbance over Brittany. Depression over northern Europe subsequently travelling eastwards, but new disturbance appearing near the Shetlands. Small system over Brittany moving slowly south-eastwards.

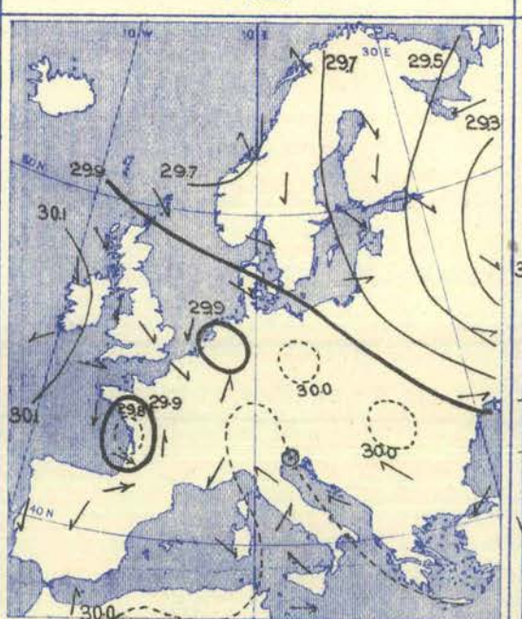
## Friday, 8th September.

### Temperature and Weather.

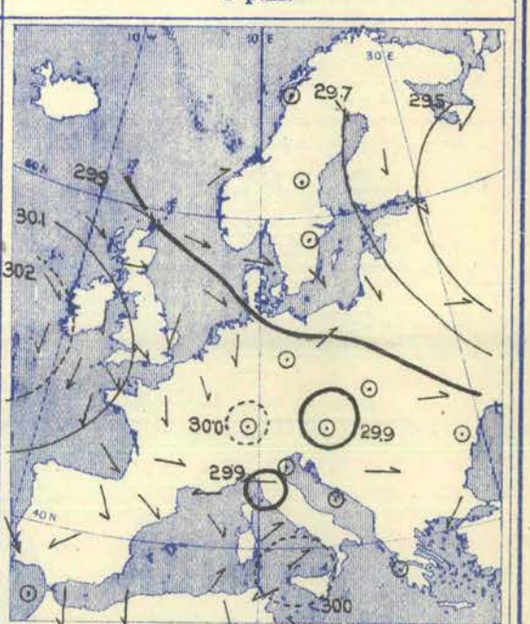
8 a.m.

### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair or fine over the greater part of our Islands and the Continent, but dull on our extreme north and north-west coasts, and also in the south of Norway, with rain at Sumburgh Head; passing showers reported at Shields and Scilly. Foggy over Belgium, north Germany, and the Straits of Dover; dull over France and south Germany, with rain at Limoges and Biarritz. Rain falling later in the extreme north and north-west of our Islands generally, as well as at many of the Continental stations, and slight showers in the east and south-east of England. Thunderstorm occurring at Nice in afternoon.

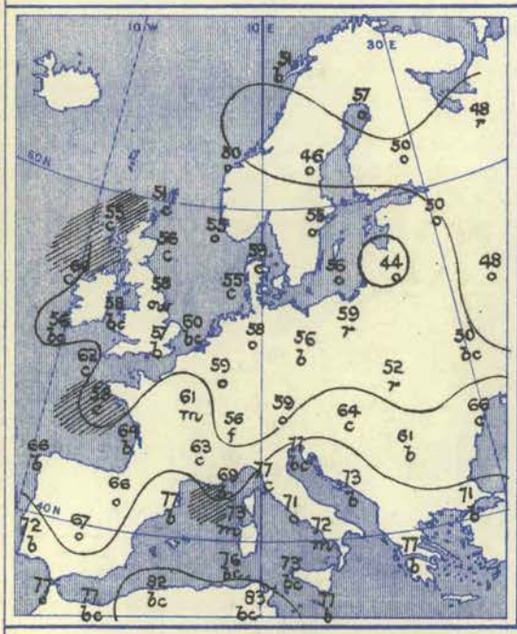
*Temperature* fallen in most places. Morning readings highest, 86° at Algiers, 81° at Naples, and 79° at Athens and La Calle; above 70° at most of the Mediterranean stations. Lowest, 45° at Kuopio, and 46° at Bodö; lowest in our Islands, 51° at Sumburgh Head. Daily maxima below 60° on our own extreme north and north-west coasts, but thermometer exceeding 70° over central and southern England, and reaching 76° in London; exceeding 85° in many parts of southern Europe, and reaching 91° at Cagliari and Palermo.

*Wind* light to moderate from the North-Westward or Northward over the greater part of our Islands, and fresh to strong from the same quarters in the west of France. Calm or variable over central and southern Europe generally, but Northerly or North-Easterly over the Spanish Peninsula. Light to moderate from the Westward or North-Westward over Sweden, Denmark, Russia, and the south of Norway, but South-Easterly in the west of Norway. No decided change occurring later.

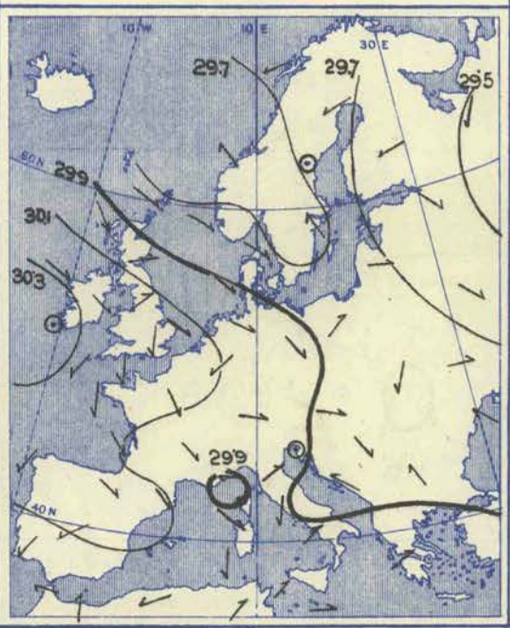
*Barometer* highest, 30·1 ins. and upwards in an anticyclone spreading from the Atlantic over the west and south of Ireland; 30·0 ins. and upwards in another system over Switzerland, Italy, and the central parts of the Mediterranean. Lowest, 29·3 ins. and less in a depression over central Russia; 29·7 ins. and less in a shallow system off the west of Norway; 29·8 ins. and less in a small, but well-marked, disturbance over the west of France. Anticyclone in west subsequently spreading eastwards; depression over western France dispersing quietly.

## Saturday, 9th September.

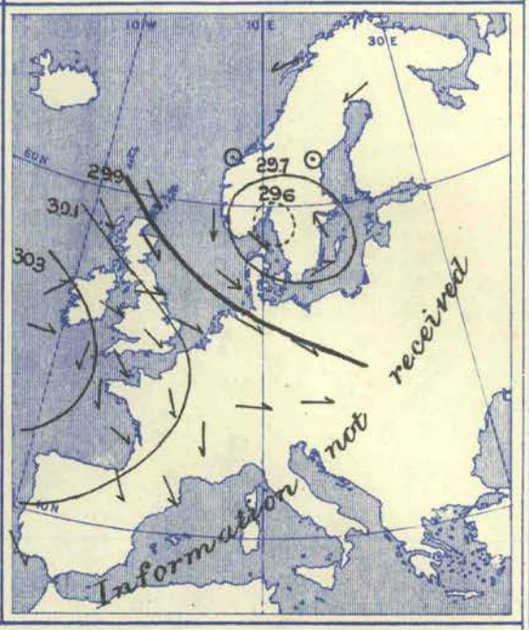
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.




*Weather* in morning fair or fine over the greater part of the United Kingdom, France and southern Europe. Cloudy or dull in the northern, eastern and central countries, with rain in isolated parts of Russia and Germany. A little rain falling later in the north-west and extreme north of our Islands, and larger amounts at some of the Continental stations—as much as 0·9 in. at Munich.

*Temperature* fallen in most countries. Morning readings highest, 83° at La Calle, 82° at Algiers and Sfax, and 81° at Tunis; considerably above 70° at several of the Mediterranean and Spanish coast stations. Lowest, 44° at Riga, 46° at Hernösand, and 47° at Hangö and Helsingfors; lowest in our Islands, 51° at Sumburgh Head and Parsonstown. Rising during day to 65° and upwards in many parts of the United Kingdom, and to 69° at Leith and in London; exceeding 75° in the south of France, and reaching 82° at Perpignan; touching 91° at Lisbon.

*Wind* Westerly to North-Westerly over the northern parts of our Islands and also over the south of Norway, Denmark, Germany, and Austria; light or moderate in force generally, but strong on some of the more exposed parts of our own extreme north and north-west coasts. Northerly over the south of our Islands and the adjacent parts of the Continent; North-Westerly in the west and south of France; Northerly to Easterly over the Spanish Peninsula. Variable in Italy and also in the south of Russia; North-Easterly in the northern parts of Russia and Scandinavia. No important change occurring during day.

*Barometer* highest, 30·3 ins. and upwards over the south of Ireland; 30·1 ins. and upwards in an anticyclone lying over the whole of Ireland, England, the Bay of Biscay, and the northern parts, both of France and Spain. Lowest, 29·5 ins. and less in a large shallow depression over northern Russia; 29·7 ins. and less in another large and irregularly formed area over the south of Sweden, Norway, and the adjacent parts of the ocean. Latter disturbance moving eastwards later and barometer rising briskly on our own extreme northern coasts.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇉ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

Shortly after the commencement of this period the anticyclone which had spread over our southern districts at the close of the previous week moved eastwards to central, and finally to south-eastern, Europe, while a well-marked depression skirted our own extreme western and northern coasts. The latter system occasioned strong Southerly winds and rain in many parts of Ireland and Scotland, but over England and the greater part of the Continent the weather was mostly fair or fine, the thermometer rising steadily, and reaching a maximum of 89° in London on the 5th.

As the depression in the west travelled away to the northward a new anticyclone began to spread over our Islands from the Atlantic, and in the hollow existing between this and the former high-pressure system numerous small, shallow disturbances were developed over England and France. The winds in these countries, therefore, became light and variable, and the weather very unsettled, with thunderstorms and heavy rain in many places. In London a sharp thunderstorm on the 6th was accompanied at Brixton by an inch of rain, nearly the whole of which fell in the space of less than half-an-hour.

Towards the close of the week the small depressions all disappeared, while the anticyclone in the west spread eastwards over France, and all the more southern parts of our Islands. The weather in those regions, therefore, became fine again, with variable breezes from the Northward or North-Westward. Over the northern parts of our Islands and the Continent the conditions were affected by depressions advancing over Scandinavia from the westward, and on the 9th the wind in the north of Scotland blew with considerable strength from the North-Westward, while rain fell on our north-western and extreme northern coasts generally.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 212.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 35·4 | ? | 38 | ? | BRIGHTON | 66·1 | +22.0 | 73 | +27 |
| STRATHPEFFER SPA | 28·6 | + 1·3 | 30 | + 3 | WORTHING | 66·4 | ? | 73 | ? |
| EDINBURGH | 21·6 | − 8·2 | 23 | − 7 | BOGNOR | 66·1* | ? | 73* | ? |
| MORPETH | 45·5 | ? | 49 | ? | EASTBOURNE | 59.0 | +18·7 | 65 | +22 |
| NEWCASTLE-ON-TYNE | 37·0 | ? | 40 | ? | VENTNOR HOSPITAL | 57·5 | ? | 63 | ? |
| OSWALDKIRK (Yorkshire) | 37·1 | + 9·5 | 40 | +11 | SOUTHPORT | 42·5 | ? | 46 | ? |
| LOWESTOFT | 44·1 | ? | 48 | ? | COLWYN BAY | ? | ? | ? | ? |
| HOLLESLEY BAY | 48·8 | ? | 53 | ? | RHYL | 49·0* | ? | 53* | ? |
| SHEFFIELD | 39·6 | ? | 43 | ? | ABERDOVEY | 46·3* | ? | 50* | ? |
| WORKSOP | 32·3 | + 2·9 | 35 | + 3 | TENBY | 48·5 | + 8·8 | 53 | +11 |
| THURCASTON (Leicestershire) | 41·2 | + 8·6 | 45 | +11 | NEWQUAY | 59·4 | +19·2 | 65 | +22 |
| MARGATE | 45·2 | + 7·4 | 50 | +10 | TORQUAY | 64·1 | +22·1 | 70 | +25 |
| WESTBOURNE (Emsworth) | 62·5* | + 21·1 | 68* | +24 | GUERNSEY | 57·3* | + 7·3 | 63* | +12 |
| WATERGATE (Emsworth) | 57·5 | ? | 63 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD., LITH., 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 37.] *Third Series.* WEEK ENDING SATURDAY, SEPTEMBER 16TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 218.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 68 | 36 | 59·6 | 46·1 | 52·6 | 1 above | 74 | + 1 | 0 | - 1 | 1920 | +355 | 617 | - 7 |
| | 1. SCOTLAND, EAST | 73 | 34 | 62·2 | 45·7 | 53·6 | 1 above | 81 | - 5 | 0 | - 1 | 2125 | +214 | 669 | + 19 |
| | 2. ENGLAND, N.E. | 70 | 40 | 62·7 | 49·1 | 55·6 | 1 above | 95 | - 1 | 0 | 0 | 2388 | +357 | 456 | - 93 |
| | 3. ENGLAND, EAST | 71 | 40 | 64·4 | 49·8 | 56·8 | 0 (average) | 104 | - 2 | 0 | 0 | 2767 | +410 | 421 | -196 |
| | 4. MIDLAND COUNTIES | 75 | 40 | 65·8 | 49·7 | 57·4 | 2 above | 108 | + 4 | 0 | 0 | 2784 | +428 | 478 | -141 |
| | 5. ENGLAND, SOUTH | 72 | 41 | 67·2 | 51·6 | 59·0 | 1 above | 119 | + 1 | 0 | 0 | 3090 | +537 | 294 | -183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 68 | 32 | 62·1 | 46·4 | 53·9 | 0 (average) | 83 | - 4 | 0 | 0 | 2259 | +268 | 413 | - 49 |
| | 7. ENGLAND, N.W. | 66 | 40 | 62·6 | 51·5 | 56·8 | 1 above | 104 | + 3 | 0 | 0 | 2592 | +424 | 313 | -146 |
| | 8. ENGLAND, S.W. | 75 | 40 | 66·9 | 54·1 | 60·2 | 4 above | 127 | +21 | 0 | 0 | 2962 | +576 | 240 | -121 |
| | 9. IRELAND, NORTH | 68 | 42 | 61·6 | 52·2 | 56·7 | 3 above | 103 | +12 | 0 | 0 | 2447 | +335 | 323 | - 72 |
| | 10. IRELAND, SOUTH | 70 | 40 | 64·2 | 53·3 | 58·5 | 3 above | 116 | +13 | 0 | 0 | 2843 | +460 | 245 | - 54 |
| | —CHANNEL ISLANDS— | 72 | 52 | 68·3 | 57·7 | 62·7 | 3 above | 145 | +24 | 0 | 0 | 3431 | +758 | 81 | - 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 218.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 7 | 17 | 7 more | 152 | -15 | 29·7 | - 2·2 | 22 | 0 | 25 | 0 | 1059 | +159 | 30 | + 5 |
| | 1. SCOTLAND, EAST | 6 | 8 | 1 more | 139 | + 2 | 21·8 | + 0·4 | 23 | - 5 | 25 | - 5 | 1123 | + 67 | 32 | + 2 |
| | 2. ENGLAND, N.E. | 3 | 4 | 1 less | 122 | - 5 | 15·8 | - 1·7 | 27 | + 1 | 31 | + 2 | 1105 | + 85 | 33 | + 3 |
| | 3. ENGLAND, EAST | 2 | 3 | 3 less | 109 | -14 | 13·9 | - 3·4 | 36 | - 3 | 41 | - 3 | 1536 | +241 | 44 | + 7 |
| | 4. MIDLAND COUNTIES | 2 | 2 | 4 less | 108 | -13 | 17·1 | - 1·8 | 28 | - 3 | 32 | - 2 | 1362 | +282 | 41 | + 8 |
| | 5. ENGLAND, SOUTH | 2 | 2 | 4 less | 93 | -23 | 14·7 | - 4·0 | 35 | - 4 | 40 | - 3 | 1650 | +324 | 48 | +10 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 6 | 10 | 1 less | 148 | + 5 | 31·5 | - 1·3 | 23 | - 7 | 26 | - 7 | 1147 | + 30 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 5 | 7 | 1 less | 133 | + 1 | 22·9 | + 0·4 | 21 | - 9 | 23 | -10 | 1338 | +220 | 39 | + 6 |
| | 8. ENGLAND, S.W. | 3 | 2 | 6 less | 118 | -14 | 24·8 | - 0·7 | 31 | - 7 | 35 | - 7 | 1612 | +258 | 48 | + 8 |
| | 9. IRELAND, NORTH | 7 | 6 | 2 less | 156 | 0 | 24·3 | - 0·7 | 12 | -14 | 14 | -15 | 1163 | +139 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 4 | 3 | 5 less | 130 | -11 | 28·1 | - 1·7 | 16 | -15 | 18 | -17 | 1318 | +159 | 39 | + 5 |
| | — CHANNEL ISLANDS— | 3 | 1 | 6 less | 111 | -27 | 17·1 | - 3·4 | 43 | - 1 | 48 | - 3 | 1775 | +281 | 55 | + 9 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* remained fine over the greater part of England until towards the close of the week, but elsewhere the conditions were dull and unsettled, with frequent falls of rain.

*Temperature* was again above the mean in most districts, but just equal to it in Scotland W. and England E. The highest of the daily maxima were recorded during the middle part of the period, and ranged from 75° in the Midland Counties and England S.W., to 66° in England N.W. The lowest of the minima were recorded on the 11th over England and on the 15th in most parts of Ireland and Scotland; they varied from 32° in Scotland W. (at Glenlee), and from 36° in Scotland N., to 42° in Ireland N., and to 52° in the Channel Islands.

*Rainfall* greatly exceeded the mean in Scotland N., and slightly in Scotland E. In Ireland and England, however, the fall was again deficient.

*Bright Sunshine* was less than the normal in almost all districts. The percentage of the possible duration ranged from 48 in the Channel Islands, and 41 in England E., to 25 or 26 in the Scotch districts, and to between 14 and 18 in Ireland.

*Barometer and Wind.*—During the greater part of the week the distribution of pressure over our southern and south-western districts was anticyclonic, while depressions of little depth skirted or travelled eastwards over the northern parts of the country. North-Westerly and Westerly winds consequently prevailed very generally, and were mainly light or moderate in force. Towards the end of the period, however, when a large depression lay over the North Sea and the anticyclone had receded south-westwards, the North-Westerly wind increased considerably in force in all parts of the Kingdom, and blew a gale in places.

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913 | 70 9 | 99.

# II.—DATA from which the SUMMARY on page 217 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 57 | 42 | 55·3 | 46·3 | 50·6 | 0·0 | 60 | 0 | 7 | 1·53 | + 0·73 | * | * | * | * |
| | Stornoway | 63 | 44 | 59·3 | 46·4 | 52·5 | + 1·2 | 74 | 0 | 7 | 1·86 | + 0·93 | 25·7 | + 0·7 | 29 | + 2 |
| | Wick | 63 | 36 | 58·1 | 43·6 | 50·5 | − 1·4 | 60 | 0 | 6 | 1·51 | + 0·91 | * | * | * | * |
| | Lairg Ⓢ | 68 | 46 | 63·2 | 48·6 | 55·6 | + 4·1 | 95 | 0 | 6 | 0·90 | + 0·21 | * | * | * | * |
| | Glencarron Ⓢ | 63 | 41 | 59·3 | 45·1 | 51·9 | + 0·5 | 69 | 0 | 7 | 2·53 | + 0·86 | * | * | * | * |
| | Fort Augustus Ⓢ | 68 | 41 | 61·7 | 45·6 | 53·3 | − 0·1 | 79 | 0 | 6 | 1·60 | + 0·71 | 19·6 | + 2·0 | 22 | + 3 |
| | Fort William Ⓢ | 63 | 45 | 60·2 | 47·4 | 53·5 | − 0·4 | 81 | 0 | 7 | 1·94 | + 0·35 | 20·7 | − 1·5 | 23 | − 1 |
| 1. SCOTLAND E. | Nairn | 71 | 38 | 62·1 | 45·3 | 53·3 | + 0·3 | 79 | 0 | 6 | 0·91 | + 0·34 | * | * | * | * |
| | Aberdeen | 67 | 40 | 60·1 | 46·1 | 52·8 | − 0·3 | 76 | 0 | 6 | 0·69 | + 0·02 | 27·6 | − 3·2 | 31 | − 2 |
| | Braemar Ⓢ | 65 | 34 | 58·0 | 43·6 | 50·5 | + 0·9 | 60 | 0 | 6 | 0·72 | − 0·10 | 22·7† | − 2·9† | 25† | − 3† |
| | Ochtertyre Ⓢ | 73 | 38 | 65·6 | 45·4 | 55·0 | + 1·8 | 91 | 0 | 4 | 1·09 | + 0·32 | * | * | * | * |
| | Leith Ⓢ | 71 | 43 | 64·7 | 48·3 | 56·1 | + 1·4 | 99 | 0 | 5 | 0·43 | − 0·08 | * | * | * | * |
| | Marchmont Ⓢ | 69 | 42 | 62·7 | 45·3 | 53·6 | + 1·0 | 81 | 0 | 6 | 0·86 | + 0·13 | 22·5 | − 6·2 | 25 | − 6 |
| 2. ENGLAND, N.E. | Alnwick Castle | 69 | 42 | 62·6 | 48·7 | 55·3 | + 2·2 | 93 | 0 | 4 | 0·64 | + 0·02 | * | * | * | * |
| | Durham | 70 | 40 | 65·1 | 48·0 | 56·1 | + 1·9 | 99 | 0 | 3 | 0·27 | − 0·26 | 28·3 | − 0·3 | 32 | 0 |
| | Shields | 68 | 44 | 62·4 | 49·0 | 55·4 | + 1·1 | 94 | 0 | 4 | 0·54 | 0·00 | * | * | * | * |
| | Scarborough Ⓜ | 67 | 43 | 62·1 | 47·9 | 54·7 | − 0·6 | 89 | 0 | 3 | 0.26 | − 0·33 | ? | ? | ? | ? |
| | Spurn Head | 64 | 50 | 61·4 | 52·0 | 56·5 | − 0·3 | 102 | 0 | 3 | 0·27 | − 0·15 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 66 | 45 | 63·2 | 50·5 | 56·6 | + 0·5 | 102 | 0 | ?3 | 0·45 | − 0·14 | 31·2 | − 1·8 | 35 | − 2 |
| | Yarmouth | 64 | 46 | 61·6 | 50·4 | 55·7 | − 1·2 | 96 | 0 | 4 | 0·39 | − 0·21 | * | * | * | * |
| | Geldeston | 69 | 40 | 64·7 | 47·3 | 55·6 | − 1·1 | 95 | 0 | 2 | 0·46 | − 0·08 | 36·8 | − 0·9 | 42 | 0 |
| | Cambridge | 71 | 45 | 67·4 | 49·8 | 58·2 | + 1·2 | 113 | 0 | 1 | 0·14 | − 0·35 | 30·8 | − 4·7 | 35 | − 4 |
| | Felixstowe | 68 | 46 | 65·0 | 51.1 | 57·7 | + 0·6 | 110 | 0 | 2 | 0·23 | ? | 45·0 | ? | 51 | ? |
| | Rothamsted | 68 | 41 | 64·6 | 49·5 | 56·7 | + 1·1 | 103 | 0 | 2 | 0·18 | − 0·41 | 27·9 | − 7·1 | 32 | − 7 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 73 | 40 | 66·0 | 46·4 | 55·7 | + 0·2 | 96 | 0 | 1 | 0·04 | − 0·46 | * | * | * | * |
| | Loughborough | 75 | 42 | 67·0 | 48·7 | 57·4 | + 0·8 | 108 | 0 | 4 | 0·21 | − 0·36 | * | * | * | * |
| | Stamford (Ketton) | | | | | | | | | | | | * | * | * | * |
| | Cheadle Ⓜ | 68 | 44 | 62·8 | 49·0 | 55·6 | + 1·8 | 95 | 0 | 2 | 0·67 | − 0·05 | * | * | * | * |
| | Shirley (near Solihull) | 70 | 47 | 64·4 | 51·7 | 57·8 | + 2·2 | 111 | 0 | 3 | 0·28 | ? | * | * | * | * |
| | Churchstoke Ⓜ | | | | | | | | | | | | | | | |
| | Hereford (Belmont) Ⓜ | 73 | 43 | 67·1 | 50·6 | 58.5 | + 2·4 | 116 | 0 | 2 | 0·06 | − 0·54 | * | * | * | * |
| | Cirencester | 74 | 44 | 66·7 | 49·9 | 57·9 | + 3·2 | 111 | 0 | 2 | 0·13 | − 0·54 | 32·9 | − 0·6 | 37 | 0 |
| | Oxford | 71 | 45 | 66·9 | 51·3 | 58·7 | + 2·1 | 117 | 0 | 2 | 0·28 | − 0·29 | 31·7 | − 3·6 | 36 | − 3 |
| 5. ENGLAND, S. | London | 70 | 43 | 67·9 | 49·6 | 58·3 | + 0·2 | 114 | 0 | 2 | 0·27 | − 0·24 | 22·1† | − 9·5† | 25† | −10† |
| | Cranley Ⓜ | 70 | 41 | 67·9 | 49·8 | 58·4 | + 0·8 | 115 | 0 | 2 | 0·21 | ? | * | * | * | * |
| | Dungeness | 68 | 44 | 66·3 | 50·9 | 58·2 | − 0·3 | 113 | 0 | 3 | 0·22 | − 0·36 | * | * | * | * |
| | Hastings (St. Leonards) | 68 | 48 | 65·8 | 51·9 | 58·5 | + 0·2 | 116 | 0 | 2 | 0·28 | − 0·32 | 34·0 | − 6·0 | 39 | − 5 |
| | Southampton | 71 | 47 | 69·3 | 52·0 | 60·2 | + 1·9 | 127 | 0 | 3 | 0·13 | − 0·51 | 37·5 | − 2·5 | 43 | 0 |
| | Portland Bill | 72 | 51 | 66·4 | 55·1 | 60·5 | + 2·4 | 130 | 0 | 1 | 0·02 | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 70 | 46 | 66·9 | 51·7 | 58·9 | + 2·9 | 118 | 0 | 2 | 0·19 | − 0·56 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 65 | 42 | 60·6 | 47·0 | 53·5 | 0·0 | 81 | 0 | 7 | 1·85 | + 0·35 | * | * | * | * |
| | Glasgow | 65 | 43 | 61·2 | 47·8 | 54·2 | + 1·1 | 85 | 0 | 7 | 0·61 | − 0·27 | 25·1 | − 0·7 | 28 | 0 |
| | Glenlee Ⓢ | 68 | 32 | 63·4 | 41·4 | 51·9 | − 1·3 | 72 | 2 | 6 | 0·92 | − 0·18 | * | * | * | * |
| | Douglas (Isle of Man) | 68 | 37 | 63·3 | 49·3 | 56·0 | + 1·8 | 98 | 0 | 4 | 0·42 | − 0·42 | 21·3 | −13·2 | 24 | −14 |
| 7. ENGLAND, N.W. | Stonyhurst | 66 | 40 | 61·2 | 47·5 | 54·0 | − 0·6 | 84 | 0 | 6 | 1·61 | + 0·47 | 22·4 | − 7·8 | 25 | − 9 |
| | Blackpool Ⓜ | 65 | 43 | 63·2 | 50·8 | 56·7 | + 1·0 | 103 | 0 | 4 | 0·48 | − 0·35 | 18·0 | −11·8 | 20 | −13 |
| | Manchester (Prestwich) | 66 | 40 | 62·3 | 46·7 | 54·1 | − 0·7 | 85 | 0 | 6 | 1·07 | + 0·17 | 18·9 | ? | 21 | ? |
| | Liverpool Obsy. (Bidston) | 64 | 51 | 62·0 | 54·4 | 58·0 | + 1·6 | 112 | 0 | 6 | 0·44 | − 0·28 | 14·1 | ? | 16 | ? |
| | Llandudno Ⓜ | 66 | 53 | 63·9 | 54·9 | 59·2 | + 2·0 | 120 | 0 | 5 | 0·39 | − 0·30 | 18·4 | −11·6 | 21 | −12 |
| | Holyhead | 66 | 52 | 62·9 | 54·6 | 58·6 | + 1·8 | 116 | 0 | 3 | 0·19 | − 0·52 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 72 | 44 | 66·9 | 51·0 | 58·6 | + 3·0 | 116 | 0 | 4 | 0·31 | − 0·72 | * | * | * | * |
| | Pembroke | 69 | 53 | 64·9 | 56·6 | 60·3 | + 3·8 | 130 | 0 | 2 | 0·07 | − 0·68 | 29·1 | − 7·9 | 33 | − 7 |
| | Clifton | 71 | 50 | 67·6 | 55·3 | 61·2 | + 4·9 | 134 | 0 | 1 | 0·17 | − 0·59 | * | * | * | * |
| | Arlington (N. Devon) | 67 | 47 | 64·7 | 51·3 | 57·7 | + 2·3 | 110 | 0 | 4 | 0·42 | − 0·66 | * | * | * | * |
| | Cullompton Ⓜ | 75 | 40 | 63·4 | 52·3 | 60·4 | + 3·3 | 129 | 0 | 1 | 0·16 | − 0·54 | 31·2 | − 4·7 | 35 | − 4 |
| | Falmouth | 71 | 55 | 66·9 | 56·7 | 61·6 | + 4·4 | 137 | 0 | 3 | 0·11 | − 0·86 | 33·4 | − 5·4 | 38 | − 5 |
| | Plymouth | 72 | 50 | 67·7 | 55·3 | 61·2 | + 3·4 | 134 | 0 | 3 | 0·37 | − 0·41 | 35·4 | − 2·5 | 40 | − 2 |
| 9. IRELAND, N. | Malin Head | 61 | 51 | 59·6 | 54·0 | 56·7 | + 1·8 | 103 | 0 | 7 | 1·02 | ? | * | * | * | * |
| | Londonderry | 64 | 44 | 61·7 | 51·6 | 56·4 | + 1·9 | 101 | 0 | 7 | 0·77 | − 0·07 | * | * | * | * |
| | Edenfel (Omagh) | 64 | 42 | 60·7 | 51·6 | 55·9 | + 3·3 | 97 | 0 | 6 | 0·56 | − 0·24 | * | * | * | * |
| | Belmullet | 63 | 51 | 61·6 | 54·6 | 57·9 | + 2·2 | 111 | 0 | 7 | 0·34 | − 0·64 | * | * | * | * |
| | Markree Castle | 65 | 46 | 62·2 | 52·1 | 56·9 | + 3·5 | 104 | 0 | 7 | 0·46 | − 0·44 | 12·7 | −12·8 | 14 | −14 |
| | Armagh | 66 | 45 | 62·2 | 50·7 | 56·2 | + 2·6 | 99 | 0 | 5 | 0·33 | − 0·32 | 12·0 | −14·8 | 13 | −17 |
| | Donaghadee | 68 | 45 | 62·9 | 51·0 | 56·7 | + 2·0 | 103 | 0 | 7 | 0·42 | − 0·23 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 69 | 47 | 64·3 | 54·0 | 58·9 | + 3·1 | 118 | 0 | 5 | 0·38 | − 0·12 | 14·3 | −18·9 | 16 | −21 |
| | Parsonstown | 70 | 42 | 63·7 | 52·0 | 57·6 | + 3·1 | 109 | 0 | 5 | 0·33 | − 0·35 | 15·5 | −13·5 | 17 | −15 |
| | Kilkenny | 70 | 40 | 65·3 | 51·9 | 58·3 | + 2·4 | 114 | 0 | 2 | 0·13 | − 0·55 | * | * | * | * |
| | Roche's Point | 69 | 48 | 65·9 | 52·9 | 59·1 | + 2·7 | 120 | 0 | 2 | 0·03 | − 0·85 | * | * | * | * |
| | Valencia | 65 | 48 | 63·1 | 55·1 | 58·9 | + 2·1 | 118 | 0 | 6 | 0·48 | − 0·57 | 18·4 | −13·4 | 21 | −14 |
| | Killarney | | | | | | | | | | | | * | * | * | * |
| | Foynes | 64 | 47 | 62·7 | 54·1 | 58·2 | + 2·6 | 113 | 0 | 6 | 0·50 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 69 | 57 | 66·9 | 58·6 | 62·6 | + 4·0 | 144 | 0 | 3 | 0·05 | − 0·67 | 34·5 | ? | 39 | ? |
| | Jersey | 72 | 52 | 69·6 | 56·7 | 62·8 | + 2·2 | 146 | 0 | 2 | 0·06 | − 0·60 | 45·0 | − 2·5 | 51 | 0 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

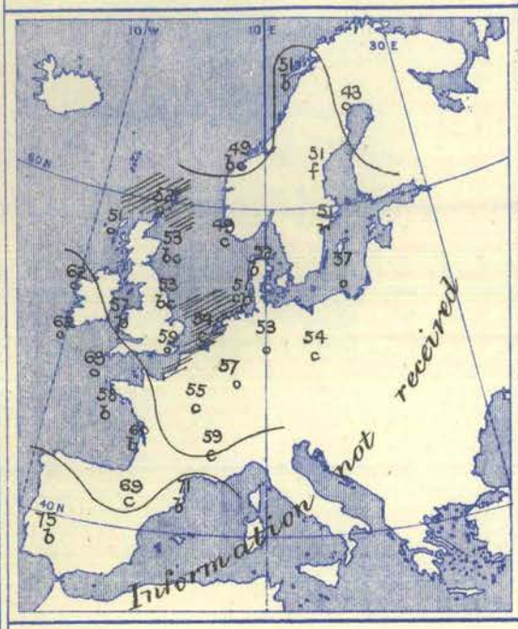
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observation made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

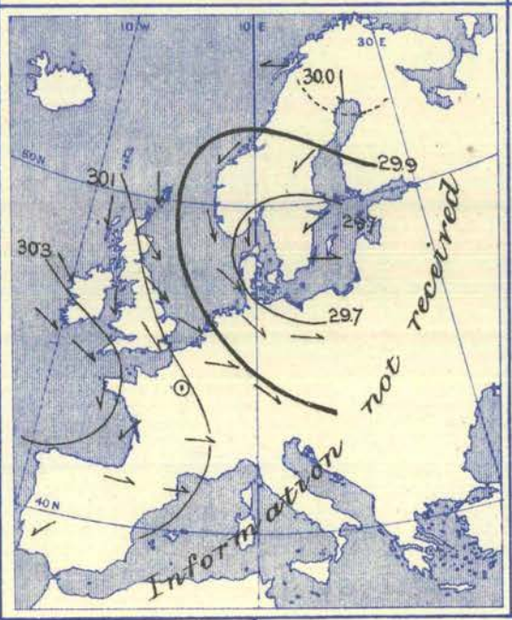
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 10th September.

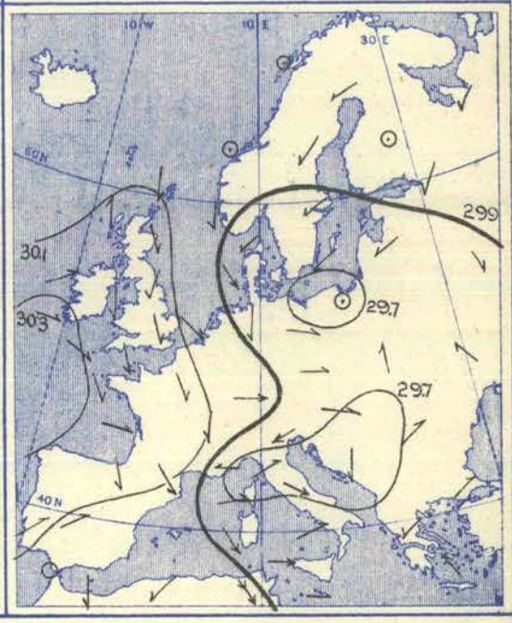
### Temperature and Weather. 8 a.m.




### Barometer and Wind. 8 a.m.




### Barometer and Wind. 6 p.m.



*Weather* in morning dull and rather showery over our Islands, very unsettled over the Baltic and eastern shores of the North Sea, fair over France. Much rain over central Europe later (1·4 ins. at Munich, more than an inch at Hermanstadt and Lesina), and smaller quantities at many of the northern stations and in Ireland.

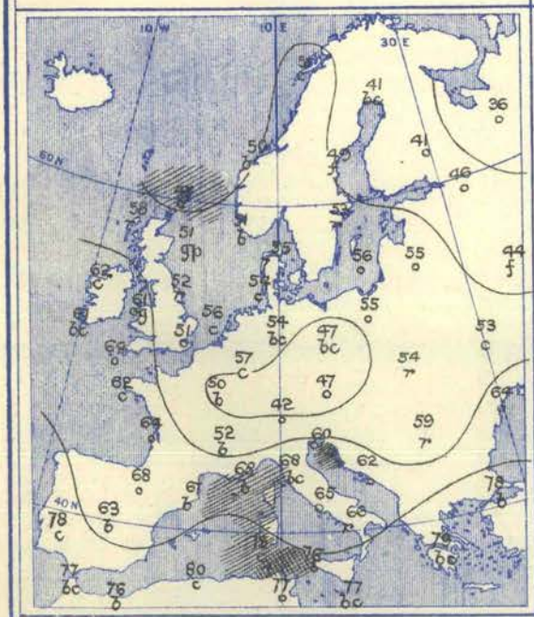
*Temperature* 71° at Perpignan, 69° at Biarritz, above 60° on our south-west and extreme western coasts, 62° at Parsonstown, 57° at Wiesbaden. Lowest, 43° at Haparanda, 49° in the west of Norway; 51° to 55° at the Scotch stations, 52° at Loughborough. Rising later to 70° at Parsonstown, to 66° only in London and 63° at Paris. Touching 72° at Rochefort, 84° at Nice and 95° at Lisbon.

*Wind* moderate to strong from East to North-East over Scandinavia, fresh from North-West in our Islands, from North-West and West over Germany; North to North-East over the west of France. Falling light over the greater part of our Islands later on, but becoming strong from West at Lyons and blowing a gale at La Calle.

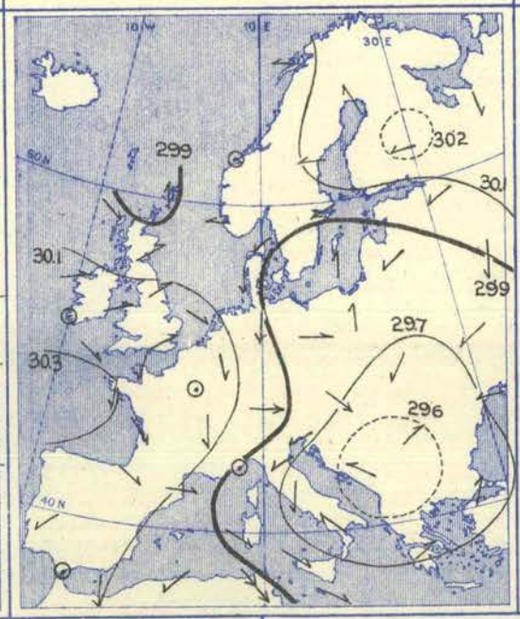
*Barometer* highest, (1) 30·34 ins. at Valencia (Ireland), and exceeding 30·1 ins. all over our Islands and the greater (western part) of France; (2) 30·0 ins. to 29·9 ins. and more over northern Europe. Lowest, 29·7 ins. and less in a depression over the Baltic. The high-pressure area in the north increasing in intensity later, the Baltic depression moving to north Germany and another appearing over the south-east of France, northern Italy and the south of Austria.

## Monday, 11th September.

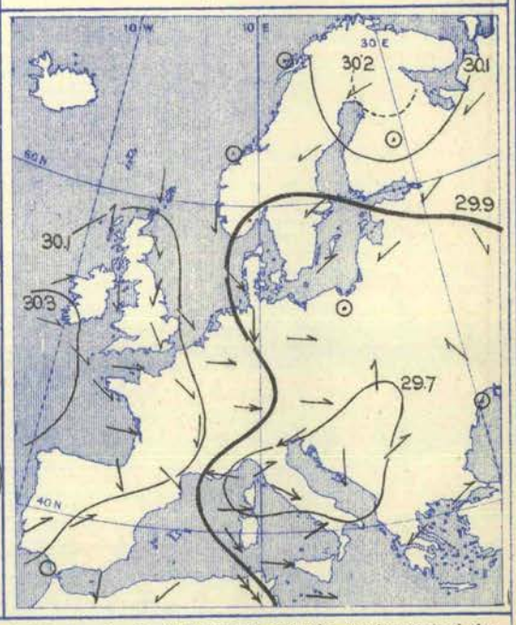
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over the greater part of our Islands and the Continent, with rain at several of our own northern stations, as well as at Stockholm, the Scaw, Naples, and in many parts of Austria. Fine in the south of Ireland, and also over the Spanish Peninsula, the central and southern parts of France, Lapland, and the west of Norway. Showers falling during day in several parts of north-western Europe; solar halo seen at Jersey.

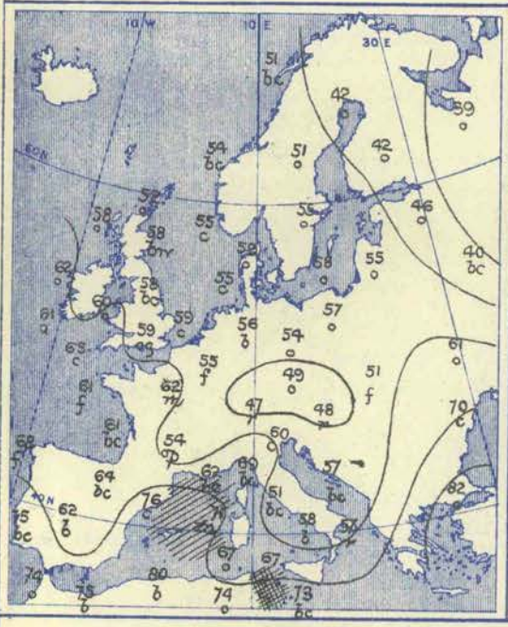
*Temperature*—morning readings highest, 80° at Algiers, 79° at Athens, and 78° at Lisbon and Constantinople; above 65° over southern Europe generally. Lowest, (1) 36° at Archangel, and 41° at Uleaborg and Kuopio; (2) 42° at Munich, and 43° at Breslau; lowest in our Islands, 47° at Sumburgh Head, 51° at Aberdeen and in London. Rising during day to between 65° and 70° in most parts of the United Kingdom, and to 71° at Leith; reaching 75°, or slightly more, in the west and south of France, and touching 91° at Lisbon.

*Wind* light to moderate from the Westward or South-Westward over the greater part of the United Kingdom, but variable on our south coasts; light from the North-Westward in the west of France, and from the Eastward or North-Eastward over the Spanish Peninsula. Light from the Eastward or North-Eastward over Russia, and strong from the same quarters in the south of Sweden; calm or Easterly over the west of Norway, Northerly over Denmark and western Germany; Westerly or North-Westerly over eastern Germany and Austria; variable in Italy.

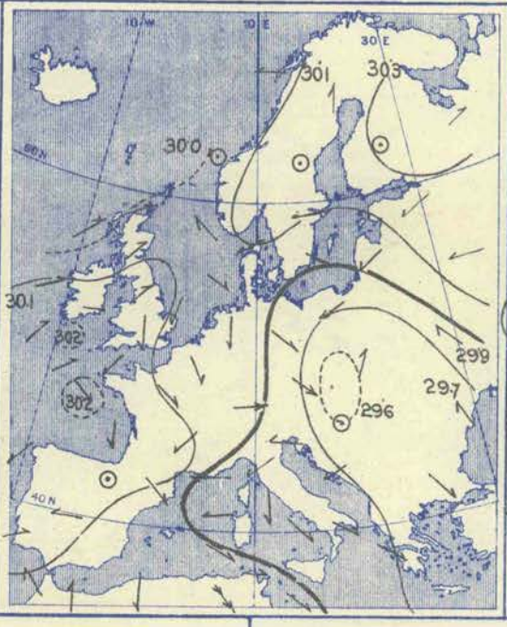
*Barometer* highest, 30·3 ins. to 30·2 ins. and upwards in an anticyclone lying over the greater part of Ireland, England, France, and Spain; 30·1 ins. and upwards in another system over the northern parts of Sweden and Russia. Lowest, 29·6 ins. and less in a large shallow depression over the Balkan Provinces and southern Austria; 29·9 ins. and less in another shallow system off the north of Scotland. Latter disturbance subsequently moving slowly eastwards and partially dispersing.

## Tuesday, 12th September.

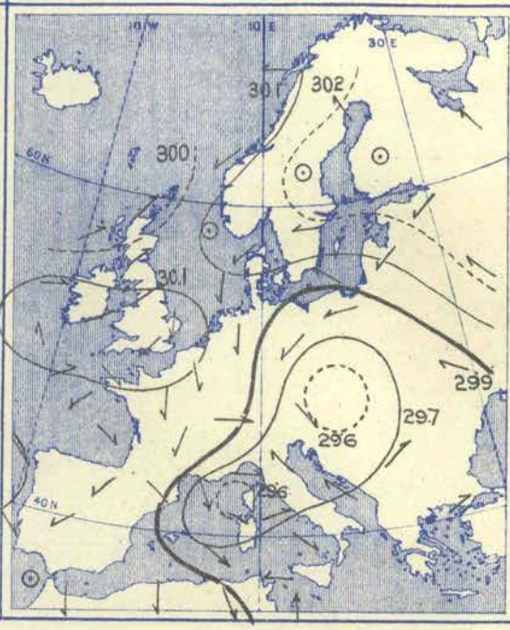
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair as a whole over western and northern Europe, including the British Islands, and bright in the north and north-east of Great Britain; dull and rainy over Germany, and rather unsettled over the Mediterranean; some rain falling later in Ireland and Scotland, still larger quantities in the Hebrides and Shetlands, and further falls in south Germany and the south-east of France, but sky clearing in London.

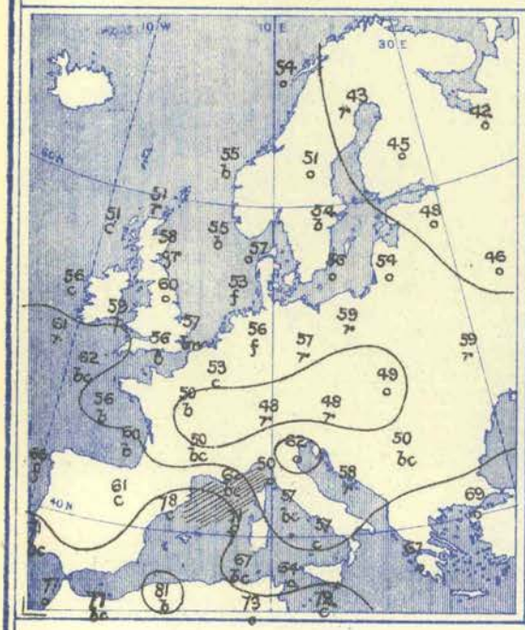
*Temperature* risen in Scotland, and over central Europe; highest readings, 80° at Algiers, 70° at Oran, Sfax, and Brindisi; above 60° in the south of France; 60° and more in the south-west and south of our Islands. Lowest, 39° at Archangel, 40° at Moscow, 51° at Bodö; below 60° all over Scandinavia and Scotland. Rising later to 75° at Loughborough (but only to 69° in London), to 72° at Paris, 73° at Rochefort, and 80° at Perpignan.

*Wind* light to moderate in force, and anticyclonic in direction, over the British Islands and France, and also over northern Europe; stronger and cyclonic in direction over north Germany and central Europe. A South-Westerly wind setting in over Scotland and the north of Ireland later.

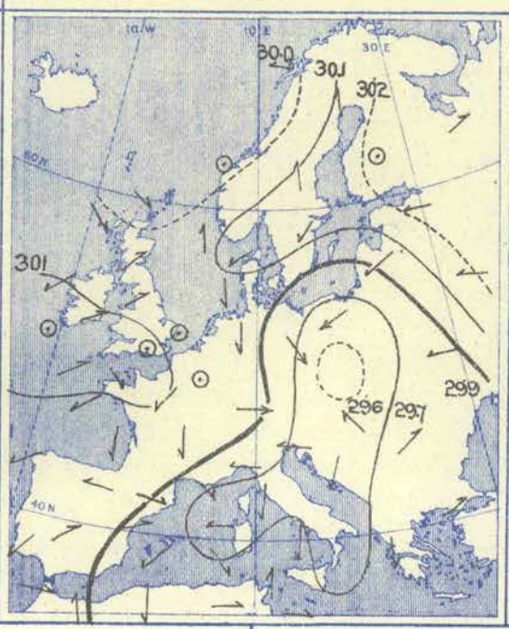
*Barometer* highest, (1) 30·3 ins. to 30·1 ins. over the northern parts of Continental Europe; (2) 30·2 ins. and more to 30·1 ins. over Ireland, England, the west of France, and the greater part of Spain. Lowest, (1) 29·6 ins. and less to 29·7 ins. over central Europe and Turkey in Asia; (2) below 30·0 ins. in the Hebrides, and off the north-west of Norway. Falling slowly over the northern parts of the United Kingdom later; rising over central Europe.

## Wednesday, 13th September.

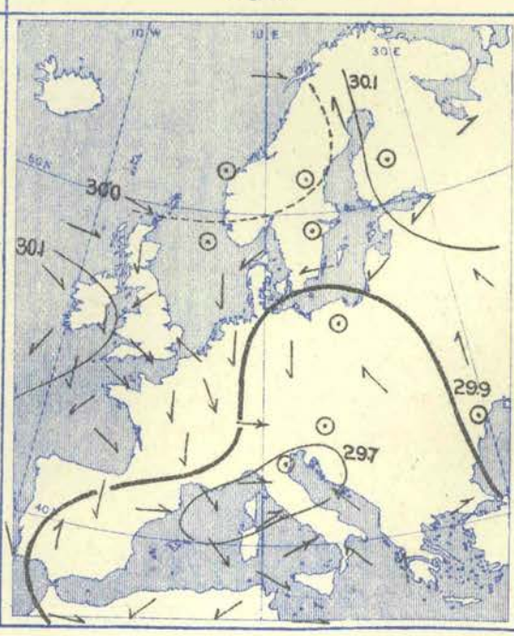
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair generally over the Mediterranean, France and the southern parts of our Islands, as well as over Sweden and the south of Norway; rather rainy in many parts of Ireland and Scotland, and over central Europe. Heavy rain in south Germany later, and small quantities in the west and north of our Islands, and on the Norwegian coasts. Lightning seen at Wick.

*Temperature* in morning highest, 81° at Algiers, 78° at Barcelona, 77° at Nemours. Lowest, 42° to 48° over the northern parts of Russia, 48° at Vienna, 51° at Karlstad and Sumburgh Head, 53° at Wick, 55° at Malin Head, 50° at Paris. Rising later to 70° in London, 68° at Paris, 80° at Perpignan, and 84° at Rochefort.

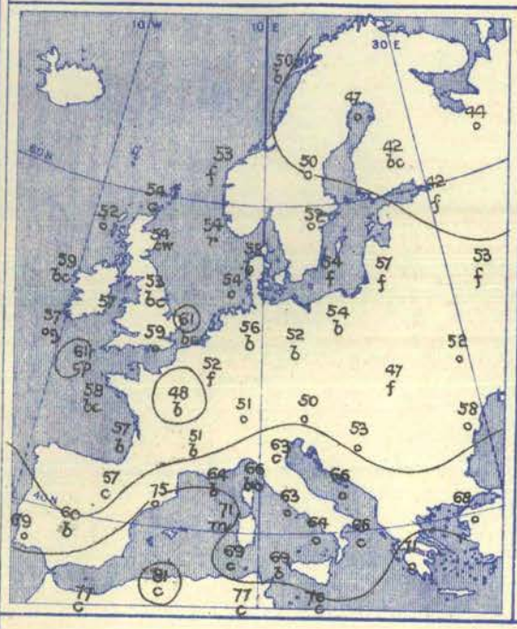
*Wind* (1) light and anticyclonic (Westerly to Northerly) and North-Easterly over England and France; (2) cyclonic and stronger (North-East to North-West) over the Baltic and the north and west of Germany, but Southerly to South-Westerly in the east of Germany. Very little change in our Islands or France later.

*Barometer* (1) 30·2 ins. and more over the north of Russia, and exceeding 30·1 ins. over Sweden, the south of Norway and the north of Denmark; (2) 30·1 ins. and more over Ireland, Wales and the south of England. Lowest, (1) 29·3 ins. and less to 29·7 ins. over central Europe, and below 29·7 ins. over the north-east of the Mediterranean. No great change later.

## Thursday, 14th September.

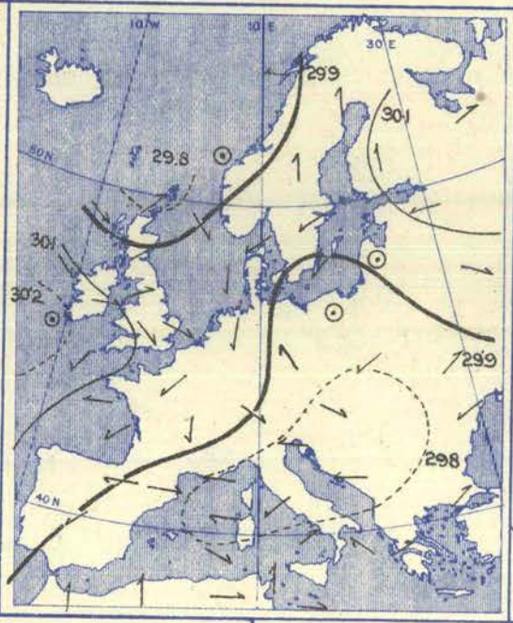
### Temperature and Weather.

8 a.m.

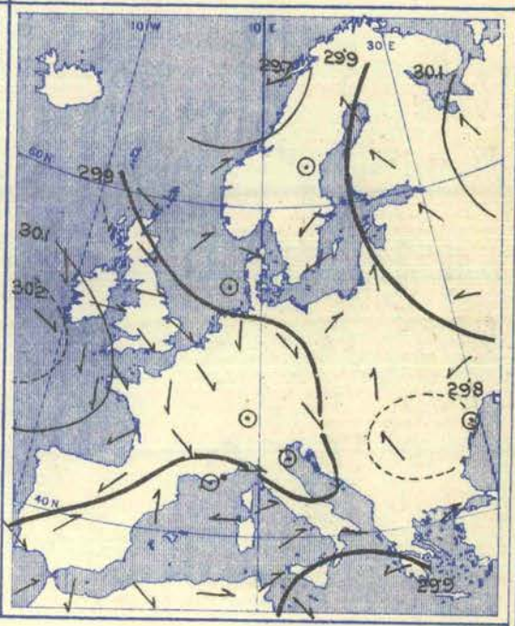


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over the Mediterranean, France, and England; fair, but cloudy, over northern Europe; dull and showery in Ireland, Scotland, and the west of Norway. Slight rain later in the last-named regions (0·2 in. or more at Stockholm, Sumburgh Head, and Stornoway).

*Temperature* in morning highest, 81° at Algiers, 75° at Barcelona, 71° at Sanguinaire; above 60° on the south and south-west coasts of our Islands. Lowest, 42° at St. Petersburg and Kuopio, 50° at Bodö, 51° at Karlstad, 53° at Loughborough. Rising later to 60° at Nairn, 67° at Loughborough, 69° in London, 71° at Jersey and Paris, and 81° at Perpignan; becoming very cool over our inland districts at night.

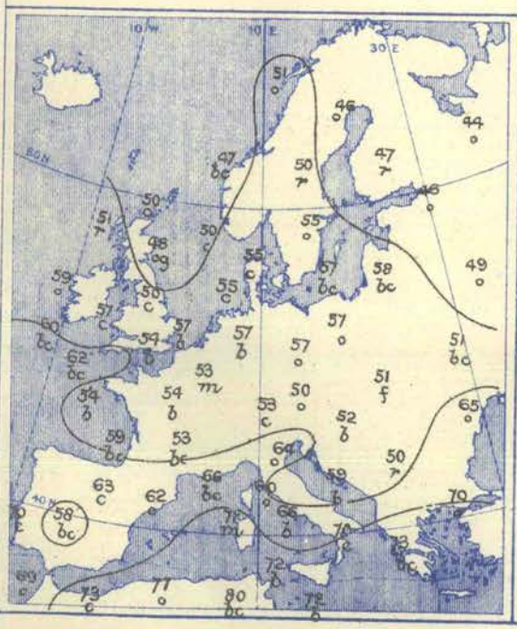
*Wind* light generally, but especially so over the east and south of Europe. Northerly in Sweden, variable over Germany and France, Westerly to North-Westerly over the United Kingdom. Becoming North-Westerly more generally in our Islands later, and falling very light.

*Barometer* highest, (1) 30·2 ins. and more in the south of Ireland, and exceeding 30·0 ins. all over Ireland, England, and the north-western half of France; (2) 30·1 ins. and more to 30·0 ins. over the north of Russia, Finland, and the Gulf of Bothnia. Lowest, 29·8 ins. and less over the south-east of Europe and northern half of the Mediterranean, also over the Shetland Isles. Rising later over Scotland and Norway; falling a little over France.

## Friday, 15th September.

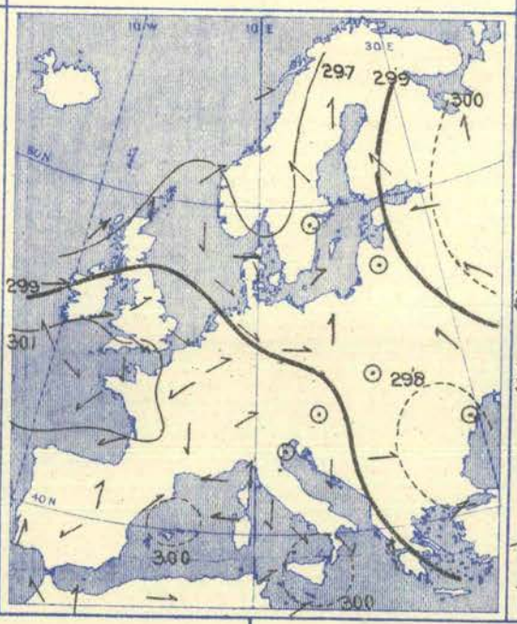
### Temperature and Weather.

8 a.m.

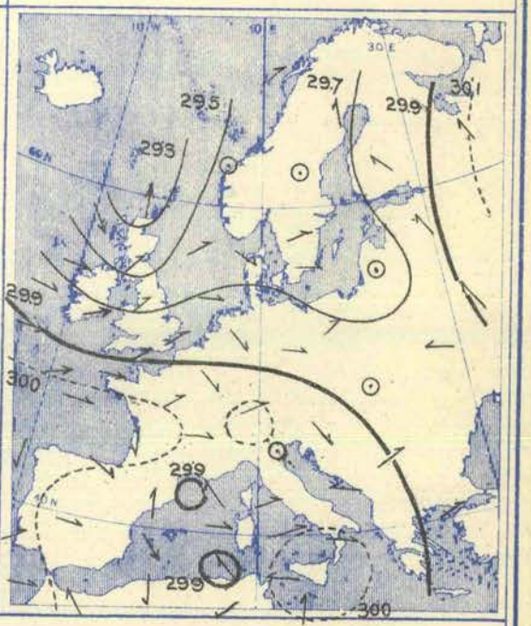


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine and bright over the Mediterranean, Spain, France, and the southern parts of our Islands; fair over central Europe; changeable over northern Europe; rainy over the northern half of the British Isles. Rain later over nearly all the northern regions, a large amount at Munich, and a considerable amount at Berlin.

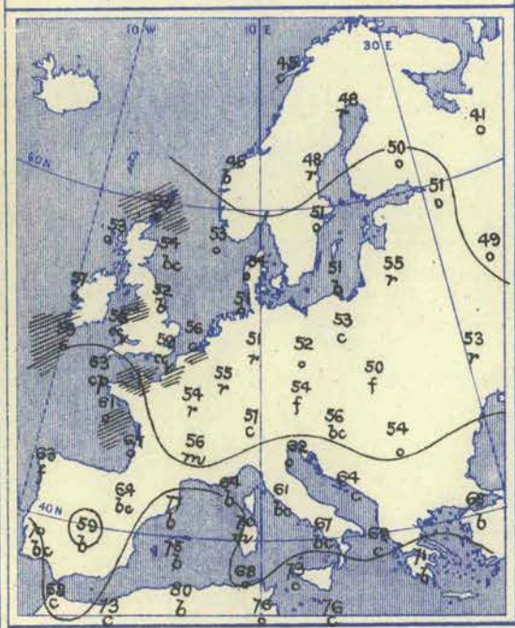
*Temperature* fallen in the north of the British Isles and west of Norway. Morning readings highest, 80° at La Calle, 77° at Algiers, 71° at Sanguinaire; above 60° in the extreme south-west of our Islands. Lowest, 44° at Archangel, 47° at Kuopio, 49° at Moscow; 50° to 48° over Scotland, 50° at Shields. Rising later to between 61° and 55° over Scotland, and to between 65° and 70° in other parts of our Islands, to 73° at Lorient, 84° at Nice, and 88° at Palermo. Succeeding night cool over Great Britain.

*Wind* very variable (mainly South-Easterly) over northern and north-eastern Europe. South-Westerly (fresh) in the north-west of our Islands. Westerly over Germany, but very light and anticyclonic over France and the greater part of southern Europe. Veering to West at our western stations later, and becoming South-Westerly over England.

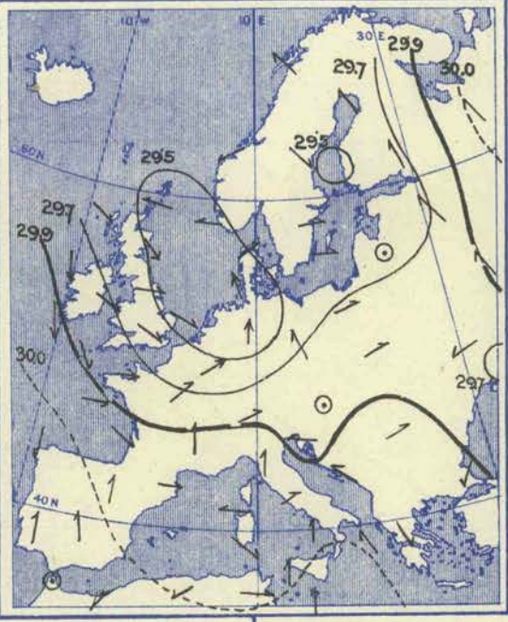
*Barometer* highest, 30·0 ins. to 29·9 ins. over all the southern countries, as well as over northern and north-eastern Europe. Lowest, 29·7 ins. and less in a depression approaching our north-west coasts, and below 29·8 ins. in a shallow system over the Black Sea and south of Russia. The depression in the north-west reaching the north of Scotland later, and barometer falling over the British Islands generally.

## Saturday, 16th September.

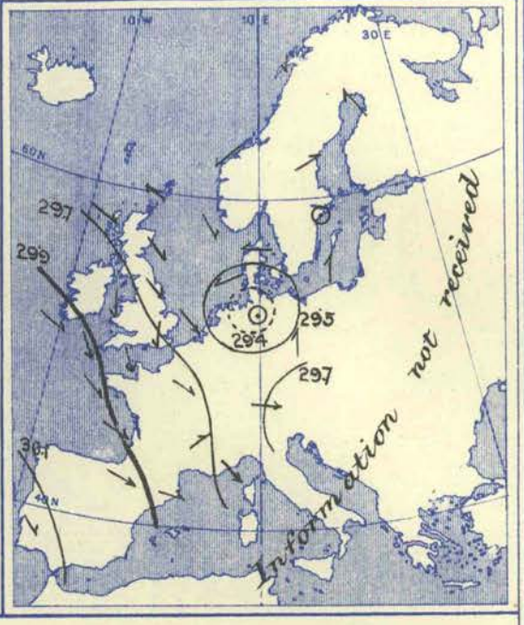
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### 6 p.m.




*Weather* in morning fine and bright over the Mediterranean, south-western and southern Europe, dull and more or less unsettled elsewhere; rain falling over several parts of the north of France, the Netherlands, and also in the Gulfs of Bothnia and Finland, showers at some of our north-western and western stations. Rain later in almost all parts of the United Kingdom, and all over central Europe; thunder heard over the inland counties of England. *Temperature* changing little but fitfully. Highest, 80° at Algiers, 77° at Barcelona, 73° at Leghorn; above 60° in the west of France and extreme south-west of England, 59° in London and at Valencia. Lowest, 41° at Archangel, and below 50° over the northern half of Scandinavia, 52° at Nairn, 53° at Stornoway, Sumburgh Head and Copenhagen. Failing to reach 70° in any part of our Islands later, but touching 75° at Lorient, 82° at Nice, and 84° at Perpignan.

*Wind* (1) Easterly and South-Easterly over northern Europe, and at Sumburgh Head, Northerly and North-Westerly in our Islands, Southerly in the Netherlands, South-Westerly over Germany; (2) very light and variable over the southern countries of Europe.

*Barometer* highest, 30·0 ins. and more, to 29·9 ins. over south-western, southern, and south-eastern Europe, and also in the north and north-east of Russia. Lowest, 29·3 ins. in a depression over the North Sea, and 29·5 ins. and less in another over the Gulf of Bothnia. The disturbance over the North Sea moving South-Eastwards later, and barometer rising on all our coasts.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟶⟶ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During this week the south-western and southern parts of our Islands and the greater part of France have been subject to anticyclonic conditions, so that in those regions the rainfall has been slight, and the winds light and variable. Temperature has occasionally risen to a little above 70° over some of the southern parts of our Islands, but as a whole the daily maxima have been rather below that value, and the minima (in the night) have been rather low.

In the north depressions of moderate intensity for the time of year, have appeared from time to time and have caused moderate to strong breezes at the northern stations. Some of these have moved south-eastwards towards Germany, and that of Thursday brought considerable showers of rain to nearly all parts of the country, while in Germany the fall was frequently very large.

At the close of the week the weather was improving in the south, but a recurrence of the falls of rain and of strong winds was probable.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 218.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 19·9 | ? | 22 | ? | BRIGHTON | 37·5 | - 3·5 | 43 | - 2 |
| STRATHPEFFER SPA | 23·8 | - 4·1 | 27 | - 2 | WORTHING | 36·3 | ? | 41 | ? |
| EDINBURGH | 18·1 | - 8·9 | 20 | - 9 | BOGNOR | 39·5* | ? | 45* | ? |
| MORPETH | 25·1 | ? | 28 | ? | EASTBOURNE | 33.7 | - 5·4 | 38 | - 5 |
| NEWCASTLE-ON-TYNE | 26·4 | ? | 30 | ? | VENTNOR HOSPITAL | 37·9 | ? | 43 | ? |
| OSWALDKIRK (Yorkshire) | 29·1 | + 1·9 | 33 | + 3 | SOUTHPORT | 21·0 | ? | 24 | ? |
| LOWESTOFT | 35·0 | ? | 40 | ? | COLWYN BAY | 19·7 | ? | 22 | ? |
| HOLLESLEY BAY | 48·0 | ? | 54 | ? | RHYL | 24·8* | ? | 28* | ? |
| SHEFFIELD | 24·0 | ? | 27 | ? | ABERDOVEY | 27·9* | ? | 31* | ? |
| WORKSOP | 24·3 | - 4·1 | 27 | - 5 | TENBY | 26·1 | -11·6 | 30 | -11 |
| THURCASTON (Leicestershire) | 28·7 | - 1·5 | 32 | - 1 | NEWQUAY | 23·4 | -14·4 | 27 | -15 |
| MARGATE | 35·7 | + 0·2 | 41 | + 2 | TORQUAY | 37·0 | - 2·5 | 42 | - 2 |
| WESTBOURNE (Emsworth) | 37·6* | - 1·6 | 43* | 0 | GUERNSEY | 47·9* | + 2·3 | 54* | + 5 |
| WATERGATE (Emsworth) | 31·9 | ? | 36 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD. LITH., 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

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VOL. XVI. NO. 38.] *Third Series.* WEEK ENDING SATURDAY, SEPTEMBER 23RD, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 224.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 62 | 38 | 54·3 | 43·1 | 48·4 | 2 below | 45 | -21 | 0 | - 1 | 1965 | +334 | 617 | - 8 |
| | 1. SCOTLAND, EAST | 64 | 36 | 55·9 | 42·6 | 49·0 | 3 below | 49 | -28 | 0 | - 1 | 2174 | +186 | 669 | + 18 |
| | 2. ENGLAND, N.E. | 66 | 40 | 59·0 | 45·7 | 52·1 | 1 below | 71 | -19 | 0 | 0 | 2459 | +338 | 456 | - 93 |
| | 3. ENGLAND, EAST | 69 | 42 | 61·6 | 47·4 | 54·2 | 1 below | 85 | -14 | 0 | 0 | 2856* | +400 | 421 | -196 |
| | 4. MIDLAND COUNTIES | 70 | 37 | 60·4 | 46·7 | 53·2 | 1 below | 78 | -19 | 0 | 0 | 2862 | +411 | 478 | -141 |
| | 5. ENGLAND, SOUTH | 70 | 40 | 63·5 | 48·7 | 55·7 | 1 below | 96 | -12 | 0 | 0 | 3186 | +525 | 294 | -183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 63 | 40 | 55·5 | 46·4 | 50·8 | 1 below | 62 | -18 | 0 | 0 | 2321 | +250 | 413 | - 49 |
| | 7. ENGLAND, N.W. | 65 | 41 | 58·0 | 48·5 | 53·0 | 2 below | 77 | -15 | 0 | 0 | 2669 | +409 | 313 | -146 |
| | 8. ENGLAND, S.W. | 71 | 36 | 62·1 | 50·6 | 56·1 | 1 above | 99 | - 1 | 0 | 0 | 3069* | +583 | 240 | -121 |
| | 9. IRELAND, NORTH | 64 | 39 | 56·8 | 46·5 | 51·4 | 2 below | 66 | -14 | 0 | 0 | 2513 | +321 | 323 | - 72 |
| | 10. IRELAND, SOUTH | 66 | 33 | 59·8 | 49·2 | 54·2 | 0 (average) | 85 | - 8 | 0 | 0 | 2928 | +452 | 245 | - 54 |
| | —CHANNEL ISLANDS | 68 | 51 | 64·4 | 55·6 | 59·8 | 1 above | 125 | +11 | 0 | 0 | 3556 | +769 | 81 | - 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 224.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 7 | 33 | 22 more | 159 | -12 | 33·0 | 0·0 | 22 | - 4 | 26 | - 3 | 1081 | +157 | 30 | + 5 |
| | 1. SCOTLAND, EAST | 6 | 7 | 0 (average) | 145 | + 5 | 22·5 | + 0·4 | 34 | + 8 | 40 | +10 | 1157 | + 75 | 33 | + 3 |
| | 2. ENGLAND, N.E. | 5 | 8 | 2 more | 127 | - 4 | 16·6 | - 1·5 | 40 | +11 | 47 | +14 | 1145 | + 96 | 33 | + 3 |
| | 3. ENGLAND, EAST | 5 | 6 | 0 (average) | 114 | -12 | 14·6* | - 3·3 | 43 | + 9 | 51 | +10 | 1579 | +250 | 44 | + 7 |
| | 4. MIDLAND COUNTIES | 5 | 6 | 0 (average) | 113 | -11 | 17·7 | - 1·9 | 37 | + 9 | 44 | +11 | 1399 | +290 | 41 | + 8 |
| | 5. ENGLAND, SOUTH | 4 | 4 | 3 less | 97 | -23 | 15·1 | - 4·2 | 44 | + 9 | 51 | +10 | 1694 | +333 | 48 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 7 | 23 | 12 more | 155 | + 8 | 33·8 | - 0·1 | 35 | + 7 | 41 | + 8 | 1182 | + 36 | 33 | 0 |
| | 7. ENGLAND, N.W. | 6 | 21 | 12 more | 139 | + 4 | 25·0 | + 1·6 | 28 | - 2 | 23 | - 4 | 1366 | +217 | 39 | + 6 |
| | 8. ENGLAND, S.W. | 5 | 6 | 3 less | 123 | -12 | 25·4 | - 1·1 | 33 | - 2 | 38 | - 2 | 1645 | +256 | 47 | + 7 |
| | 9. IRELAND, NORTH | 7 | 15 | 7 more | 163 | + 3 | 25·8 | 0·0 | 27 | + 2 | 32 | + 3 | 1190 | +141 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 5 | 7 | 1 less | 135 | - 9 | 28·8 | + 1·7 | 26 | - 5 | 30 | - 5 | 1344 | +155 | 38 | + 4 |
| | — CHANNEL ISLANDS | 4 | 6 | 2 less | 115 | -27 | 17·7 | - 3·6 | 37 | - 3 | 43 | - 2 | 1812 | +279 | 55 | + 9 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was very changeable in all parts of the Kingdom, with frequent and very heavy rain over the northern parts of Ireland and Scotland and the north-west of England, and frequent showers, with bright intervals, elsewhere.

*Temperature* was not only much lower than of late, but was below the mean in nearly all districts. The highest of the maxima were recorded at the commencement of the week, and ranged from 71° in England S.W., to 62° in Scotland N. The lowest of the minima were registered during the latter part of the period, when they ranged from 33° in Ireland S., and 36° in Scotland N. and England S.W., to 42° in England E., and to 51° in the Channel Islands.

*Rainfall* was less than the mean in England S. and S.W. and the Channel Islands, as well as in Ireland S., and just equal to it in Scotland E., England E. and the Midland Counties. In all other districts there was an excess, that in Scotland N. and W., England N.W, and Ireland N. being very large. The total fall for the week at Glencarron amounted to 6·47 ins. and that at Stonyhurst to 5·15 ins.

*Bright Sunshine* again exceeded the mean in most districts, but was rather deficient in Scotland N., England N.W. and S.W., Ireland S., and the Channel Islands. The percentage of the possible duration ranged from 51 in England S. and E., and 47 in England N.E., to 30 in Ireland S., and to 26 in Scotland N.

*Barometer and Wind.*—During the whole of this period depressions have appeared off our northern coasts, and have travelled eastwards or south-eastwards, either to Scandinavia or Germany. South-Westerly to North-Westerly winds have consequently prevailed very generally, and although moderate to fresh as a rule, have occasionally blown very strongly in different parts of our coasts, and at times attained the force of a fresh gale in the north-west and north.

207 | 90 Wy. & S., Ltd.
613 | 70 9 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 223 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 57 | 40 | 52·9 | 41·4 | 46·9 | − 2·9 | 37 | 2 | 6 | 1·31 | + 0·51 | * | * | * | * |
| | Stornoway | 57 | 40 | 54·7 | 43·7 | 48·9 | − 1·1 | 48 | 0 | 7 | 3·20 | + 2·22 | 29·0 | + 5·2 | 34 | + 7 |
| | Wick | 59 | 38 | 55·4 | 42·0 | 48·4 | − 2·4 | 45 | 0 | 7 | 2·15 | + 1·57 | * | * | * | * |
| | Lairg ℌ | 62 | 40 | 56·4 | 43·2 | 49·5 | − 0·1 | 53 | 0 | 7 | 2·71 | + 1·94 | * | * | * | * |
| | Glencarron ℌ | 60 | 40 | 52·9 | 42·9 | 47·7 | − 2·2 | 40 | 0 | 7 | 6·47 | + 4·73 | * | * | * | * |
| | Fort Augustus ℌ | 59 | 39 | 54·2 | 42·8 | 48·2 | − 3·9 | 42 | 0 | 7 | 3·23 | + 2·30 | 15·6 | − 1·7 | 18 | − 2 |
| | Fort William ℌ | 57 | 43 | 53·6 | 45·4 | 49·3 | − 3·3 | 51 | 0 | 7 | 3·85 | + 2·15 | 11·8 | −10·4 | 14 | −11 |
| 1. SCOTLAND E. | Nairn | 60 | 37 | 55·1 | 42·6 | 48·6 | − 3·2 | 46 | 0 | 7 | 1·30 | + 0·69 | * | * | * | * |
| | Aberdeen | 61 | 39 | 57·0 | 43·3 | 49·8 | − 2·0 | 55 | 0 | 7 | 0·58 | − 0·12 | 38·6 | +10·0 | 45 | +12 |
| | Braemar ℌ | 55 | 36 | 50·1 | 39·6 | 44·6 | − 3·9 | 28 | 7 | 7 | 1·09 | + 0·34 | 23·0† | − 2·0† | 27† | − 1† |
| | Ochtertyre ℌ | 62 | 40 | 58·3 | 42·0 | 49·8 | − 2·0 | 55 | 0 | 5 | 0·71 | - 0·11 | * | * | * | * |
| | Leith | 64 | 43 | 59·3 | 46·0 | 52·3 | − 1·3 | 72 | 0 | 4 | 0·19 | − 0·34 | * | * | * | * |
| | Marchmont ℌ | 61 | 40 | 55·6 | 42·3 | 48·6 | − 2·5 | 46 | 0 | 4 | 0·49 | − 0·29 | 39·8 | +13·9 | 47 | +17 |
| 2. ENGLAND, N.E. | Alnwick Castle | 63 | 40 | 59·0 | 45·9 | 52·1 | + 0·2 | 71 | 0 | 5 | 0·61 | − 0·07 | * | * | * | * |
| | Durham | 66 | 40 | 58·4 | 44·7 | 51·2 | − 1·5 | 64 | 0 | 5 | 0·78 | + 0·18 | 41·8 | +15·1 | 49 | +18 |
| | Shields | 63 | 41 | 59·1 | 44·6 | 51·5 | − 1·6 | 67 | 0 | 6 | 0·84 | + 0·27 | * | * | * | * |
| | Scarborough ℳ | 66 | 41 | 59·6 | 44·3 | 51·6 | − 2·5 | 67 | 0 | 5 | 1·11 | + 0·49 | ? | ? | ? | ? |
| | Spurn Head | 63 | 45 | 59·1 | 49·1 | 53·9 | − 1·7 | 83 | 0 | 4 | 0·82 | + 0·35 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 66 | 43 | 60·5 | 46·8 | 53·3 | − 1·3 | 79 | 0 | 5 | 1·11 | + 0·48 | 34·3 | + 3·5 | 40 | + 4 |
| | Yarmouth | 64 | 42 | 59·3 | 46·9 | 52·8 | − 3·0 | 76 | 0 | 5 | 0·63 | − 0·05 | * | * | * | * |
| | Geldeston | 67 | 43 | 60·8 | 47·3 | 53·7 | − 1·8 | 82 | 0 | 6 | 0·56 | − 0·03 | 40·1 | + 4·1 | 47 | + 5 |
| | Cambridge | 69 | 42 | 63·7 | 47·2 | 55·1 | − 0·3 | 92 | 0 | 4 | 0·42 | − 0·08 | 46·0 | +12·8 | 54 | +15 |
| | Felixstowe | 67 | 43 | 63·7 | 48·3 | 55·6 | − 0·3 | 95 | 0 | 4 | 0·28 | ? | 47·5 | ? | 56 | ? |
| | Rothamsted | 68 | 43 | 61·6 | 47·9 | 54·4 | 0·0 | 87 | 0 | 5 | 0·39 | − 0·25 | 47·0 | +14·7 | 55 | +17 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 64 | 43 | 59·1 | 47·1 | 52·8 | − 1·1 | 76 | 0 | 7 | 0·80 | + 0·25 | * | * | * | * |
| | Loughborough | 66 | 44 | 61·6 | 48·1 | 54·5 | − 0·3 | 88 | 0 | 6 | 0·96 | + 0·36 | * | * | * | * |
| | Stamford (Ketton) | 67 | 42 | 61·7 | 46·7 | 53·8 | − 1·7 | 83 | 0 | 6 | 0·58 | − 0·10 | * | * | * | * |
| | Cheadle ℳ | 64 | 42 | 57·4 | 45·6 | 51·2 | − 1·4 | 64 | 0 | 6 | 1·17 | + 0·47 | * | * | * | * |
| | Shirley (near Solihull) | 66 | 39 | 59·7 | 46·2 | 52·6 | − 1·5 | 74 | 0 | 4 | 0·36 | ? | * | * | * | * |
| | Churchstoke ℳ | 65 | 39 | 59·6 | 46·2 | 52·1 | 0·0 | 74 | 0 | 5 | 0·58 | − 0·09 | ?41·2 | ?+10·9 | ?49 | ?+14 |
| | Hereford (Belmont) ℳ | 69 | 39 | 61·6 | 47·4 | 54·2 | − 0·2 | 85 | 0 | 5 | 0·50 | − 0·15 | * | * | * | * |
| | Cirencester | 67 | 37 | 61·0 | 45·7 | 53·0 | − 0·3 | 77 | 0 | 3 | 0·27 | − 0·43 | 45·4 | +15·5 | 53 | +18 |
| | Oxford | 70 | 42 | 61·9 | 47·7 | 54·5 | − 0·5 | 88 | 0 | 4 | 0·32 | − 0·30 | 46·3 | +13·8 | 54 | +16 |
| 5. ENGLAND, S. | London | 69 | 40 | 63·4 | 47·4 | 55·0 | − 1·3 | 91 | 0 | 4 | 0·42 | − 0·13 | 37·6† | + 9·6† | 44† | +11† |
| | Cranley ℳ | 70 | 41 | 64·8 | 47·7 | 55·8 | − 0·3 | 97 | 0 | 3 | 0·84 | ? | * | * | * | * |
| | Dungeness | 68 | 43 | 65·4 | 50·0 | 57·3 | + 0·1 | 107 | 0 | 2 | 0·19 | − 0·46 | * | * | * | * |
| | Hastings (St. Leonards) | 67 | 42 | 62·4 | 47·8 | 54·8 | − 2·0 | 90 | 0 | 3 | 0·46 | − 0·24 | 48·7 | +10·8 | 57 | +13 |
| | Southampton | 70 | 42 | 65·0 | 48·1 | 56·2 | − 0·4 | 99 | 0 | 4 | 0·34 | − 0·36 | 41·7 | + 6·4 | 49 | + 8 |
| | Portland ℳ | 67 | 52 | 62·3 | 54·4 | 58·2 | + 1·4 | 113 | 0 | 2 | 0·13 | ? | * | * | * | * |
| | Shaftesbury ℳ | 67 | 40 | 60·9 | 45·6 | 52·9 | − 1·2 | 76 | 0 | 7 | 0·66 | − 0·15 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 58 | 43 | 54·1 | 46·4 | 50·1 | − 1·9 | 57 | 0 | 7 | 4·02 | + 2·33 | * | * | * | * |
| | Glasgow | 59 | 42 | 54·3 | 45·1 | 49·5 | − 1·9 | 53 | 0 | 6 | 1·44 | + 0·58 | 31·2 | + 8·2 | 37 | +10 |
| | Glenlee ℌ | 61 | 40 | 55·4 | 45·5 | 50·2 | − 1·8 | 57 | 0 | 7 | 2·44 | + 1·27 | * | * | * | * |
| | Douglas (Isle of Man) | 63 | 44 | 58·2 | 48·6 | 53·2 | + 0·1 | 78 | 0 | 6 | 1·31 | + 0·51 | 38·6 | + 5·1 | 45 | + 6 |
| 7. ENGLAND, N.W. | Stonyhurst | 60 | 41 | 55·7 | 46·7 | 51·0 | − 2·2 | 63 | 0 | 7 | 5·15 | + 4·02 | 24·9 | − 4·3 | 29 | − 5 |
| | Blackpool ℳ | 63 | 43 | 58·6 | 49·2 | 53·7 | − 0·6 | 82 | 0 | 7 | 1·95 | + 1·05 | 27·2 | 0·0 | 32 | 0 |
| | Manchester (Prestwich) | 61 | 42 | 57·4 | 46·6 | 51·7 | − 1·7 | 68 | 0 | 7 | 2·63 | + 1·68 | 30·2 | ? | 36 | ? |
| | Liverpool Obsy. (Bidston) | 63 | 45 | 58·3 | 48·4 | 53·1 | - 1·6 | 78 | 0 | 7 | 1·21 | + 0·41 | 27·2 | ? | 32 | ? |
| | Llandudno ℳ | 64 | 48 | 59·7 | 51·4 | 55·4 | − 0·4 | 94 | 0 | 4 | 0·59 | − 0·16 | 24·8 | − 3·0 | 29 | − 3 |
| | Holyhead | 65 | 46 | 58·1 | 48·4 | 53·0 | - 2·8 | 77 | 0 | 5 | 0·95 | + 0·21 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 66 | 36 | 62·0 | 46·7 | 54·0 | + 0·4 | 84 | 0 | 7 | 0·85 | − 0·24 | * | * | * | * |
| | Pembroke | 65 | 49 | 59·6 | 52·3 | 55·8 | 0·0 | 97 | 0 | 5 | 0·56 | − 0·25 | 29·3 | − 4·7 | 34 | − 5 |
| | Clifton | 69 | 44 | 62·5 | 51·0 | 56·5 | + 1·9 | 102 | 0 | 3 | 0·60 | − 0·20 | * | * | * | * |
| | Arlington (N. Devon) | 66 | 43 | 60·6 | 49·4 | 54·7 | + 0·4 | 89 | 0 | 6 | 0·97 | − 0·13 | * | * | * | * |
| | Cullompton ℳ | 71 | 39 | 63·3 | 48·6 | 55·9 | + 0·2 | 97 | 0 | 5 | 0·34 | − 0·46 | 36·1 | + 3·3 | 42 | + 5 |
| | Falmouth | 67 | 49 | 63·0 | 53·5 | 58·0 | + 1·5 | 112 | 0 | 5 | 0·49 | − 0·54 | 34·9 | − 0·6 | 41 | 0 |
| | Plymouth | 69 | 42 | 63·0 | 52·5 | 57·5 | + 0·8 | 109 | 0 | 4 | 0·32 | − 0·56 | 33·6 | − 1·5 | 39 | − 2 |
| 9. IRELAND, N. | Malin Head | 59 | 43 | 55·3 | 47·9 | 51·4 | − 2·2 | 66 | 0 | 7 | 1·71 | ? | * | * | * | * |
| | Londonderry | 60 | 41 | 56·3 | 43·9 | 49·8 | − 3·3 | 55 | 0 | 7 | 1·42 | + 0·53 | * | * | * | * |
| | Edenfel (Omagh) | 59 | 39 | 55·3 | 45·6 | 50·2 | − 1·3 | 57 | 0 | 7 | 1·59 | + 0·77 | * | * | * | * |
| | Belmullet | 61 | 47 | 57·3 | 50·3 | 53·6 | − 0·6 | 81 | 0 | 7 | 1·33 | + 0·31 | * | * | * | * |
| | Markree Castle | 63 | 39 | 57·6 | 45·6 | 51·3 | − 0·8 | 65 | 0 | 7 | 2·00 | + 1·10 | 24·4 | + 0·5 | 29 | + 1 |
| | Armagh | 63 | 42 | 57·9 | 45·9 | 51·6 | − 0·8 | 67 | 0 | 6 | 1·39 | + 0·75 | 29·3 | + 2·6 | 34 | + 3 |
| | Donaghadee | 64 | 41 | 57·7 | 46·0 | 51·6 | − 2·0 | 67 | 0 | 7 | 1·31 | + 0·68 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 66 | 43 | 59·7 | 47·8 | 53·5 | − 1·0 | 81 | 0 | 5 | 0·45 | − 0·07 | 34·2 | + 2·0 | 40 | + 3 |
| | Parsonstown | 62 | 37 | 58·9 | 46·6 | 52·5 | − 0·3 | 74 | 0 | 6 | 0·77 | + 0·03 | 26·4 | − 2·7 | 31 | − 2 |
| | Kilkenny | 65 | 33 | 60·0 | 46·1 | 52·7 | − 1·9 | 75 | 0 | 5 | 0·50 | − 0·10 | * | * | * | * |
| | Roche's Point | 66 | 48 | 60·7 | 51·4 | 55·8 | + 0·8 | 97 | 0 | 4 | 0·24 | − 0·58 | * | * | * | * |
| | Valencia | 63 | 47 | 60·4 | 53·4 | 56·7 | + 1·0 | 103 | 0 | 5 | 0·78 | − 0·22 | 15·9 | −14·4 | 19 | −16 |
| | Killarney | | | | | | | | | | | | * | * | * | * |
| | Foynes | 62 | 41 | 59·1 | 49·8 | 54·2 | + 0·2 | 85 | 0 | 7 | 1·18 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 67 | 51 | 64·1 | 54·3 | 59·0 | + 1·4 | 119 | 0 | 3 | 0·39 | − 0·44 | 32·4 | ? | 38 | ? |
| | Jersey | 68 | 51 | 64·7 | 56·9 | 60·6 | + 1·0 | 130 | 0 | 4 | 0·73 | − 0·04 | 38·4 | − 3·7 | 45 | − 4 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

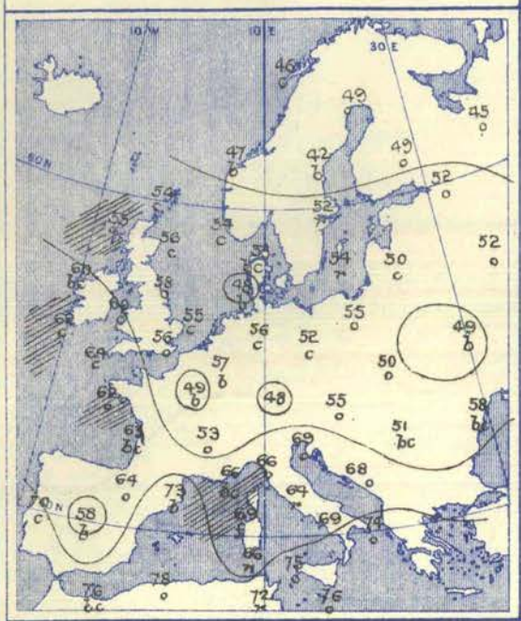
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observation made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

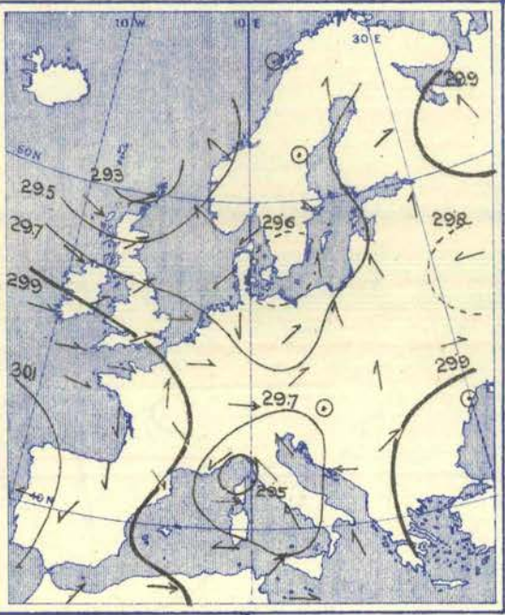
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 17th September.

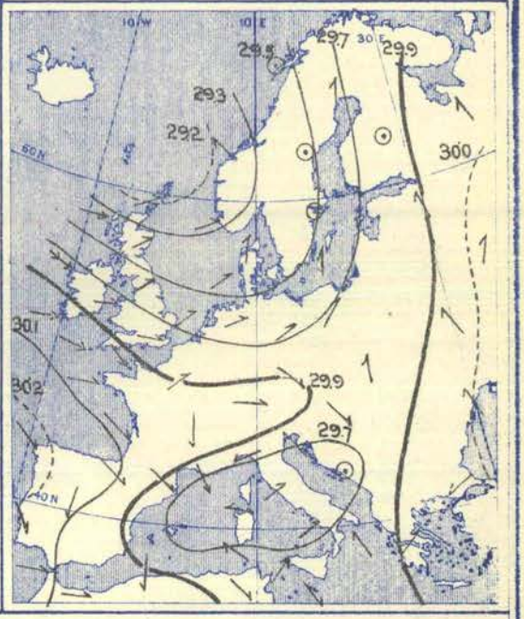
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over Spain and France, as well as some parts of eastern Europe, cloudy or overcast elsewhere, rainy in Scotland and the north of Ireland. Considerable rain in the latter regions later in the day, and some over the Baltic and Germany. Large falls over Italy and the south of Austria, as well as in central Russia.

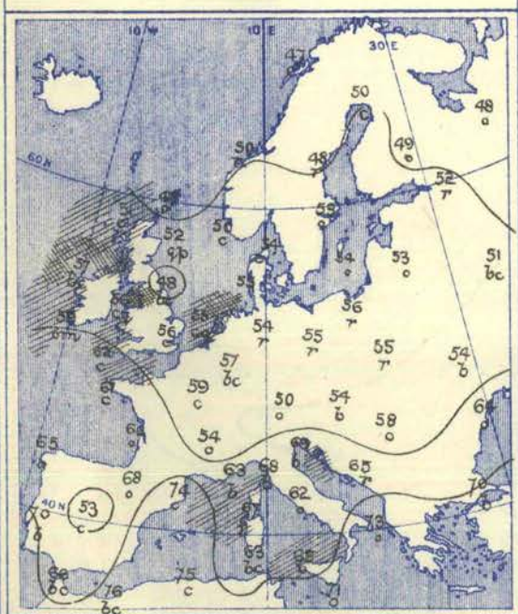
*Temperature* in morning, 78° at Algiers, 74° at Brindisi, 72° at Tunis; 66° at Nice, 63° to 60° in the west of France, 64° at Scilly, 62° in the south of Ireland. Lowest, 42° at Hernosand, 45° at Archangel, 47° at Christiansund and Karlstad, 48° at Fanö and Munich, 52° in the Gulf of Finland, 53° at the Scaw. Reaching 70° at Oxford later, 71° at Paris, 78° at Perpignan, 82° at Brindisi, 84° at Cagliari, 90° at Algiers.

*Wind* (1) North-Westerly to Westerly over the United Kingdom, and moderate to fresh in force, but South-Easterly, light in the west of Norway; (2) light to moderate (cyclonic) over the Sound and western parts of the Baltic; (3) another cyclonic circulation, (moderate to strong) over the northern parts of the Mediterranean. Increasing in strength over our Islands later, and blowing a gale in the north-west of Ireland.

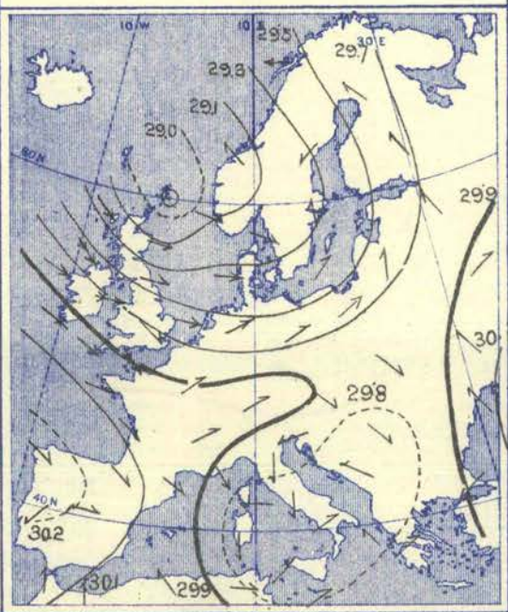
*Barometer* in morning highest, (1) 30·17 ins. at Oporto, and exceeding 30·0 ins. all over the Bay of Biscay and west of France; (2) 29·9 ins. and more over both the north and the south of Russia. Lowest, (1) 29·3 ins. and less over the Shetlands; (2) 29·6 ins. and less in a shallow depression over Holstein, Saxony, and the south of Sweden; (3) 29·5 ins. and less over the Gulf of Genoa; and (4) 29·8 ins. and less over central Russia. Falling again in our Islands later and becoming unsettled in the north.

## Monday, 18th September.

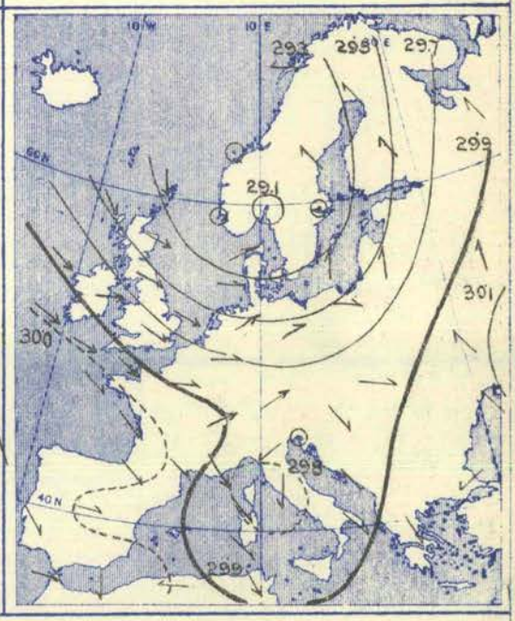
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over Spain, France and south-eastern Europe, very unsettled over Germany and the northern and north-western countries, including the British Islands; rain falling at many stations, and weather very squally generally. Rain falling later at our western and northern stations, and in considerable quantities over Sweden, the Baltic, and Germany, and large quantities in Austria and some parts of Italy.

*Temperature* falling fast in various parts of Scotland and Ireland. Morning readings highest, 79° to 72° at several of the southern and western stations in the Mediterranean, 68° at Biarritz, 60° on our south-western coasts. Lowest, 47° at Bodö and Sumburgh Head, 49° at Kuopio, Skudesnaes, and below 55° over the northern half of our Islands. Not touching 70° in any part of our Islands later, but reaching that point at Paris, 72° at Rochefort, 81° at Perpignan, 82° at Biarritz, 94° at Madrid, 100° at Oporto.

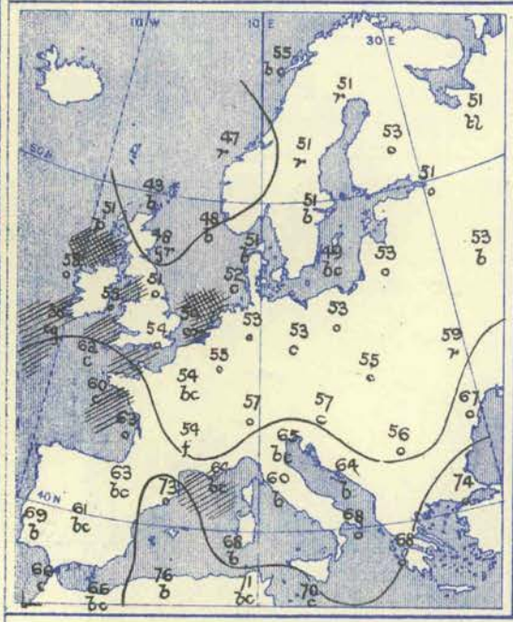
*Wind* (1) strong and squally (a gale in places) from North-West and West over the British Isles, the north of France and the North Sea, strong from South-West over north Germany, and from South-East over Scandinavia; (2) strong and circulating cyclonically over the eastern parts of the Mediterranean; (3) light over France, south Germany and Poland. The gale and strong wind continuing in force over our Islands all day.

*Barometer* highest, 30·2 ins. and more over the north-west parts of the Iberian Peninsula, and exceeding 30·0 ins. all over that region, the western parts of France and the Bay of Biscay; (2) 30·1 ins. and more to 29·9 ins. over the south-east of Russia. Lowest, 29·0 ins. and less to 29·1 ins. over the north of our Islands and west of Norway; and (2) below 29·8 ins. over Sicily, Italy, Sardinia and their neighbourhood. The northern depression moving eastwards later, that over the Mediterranean beginning to fill up.

## Tuesday, 19th September.

### Temperature and Weather.

8 a.m.

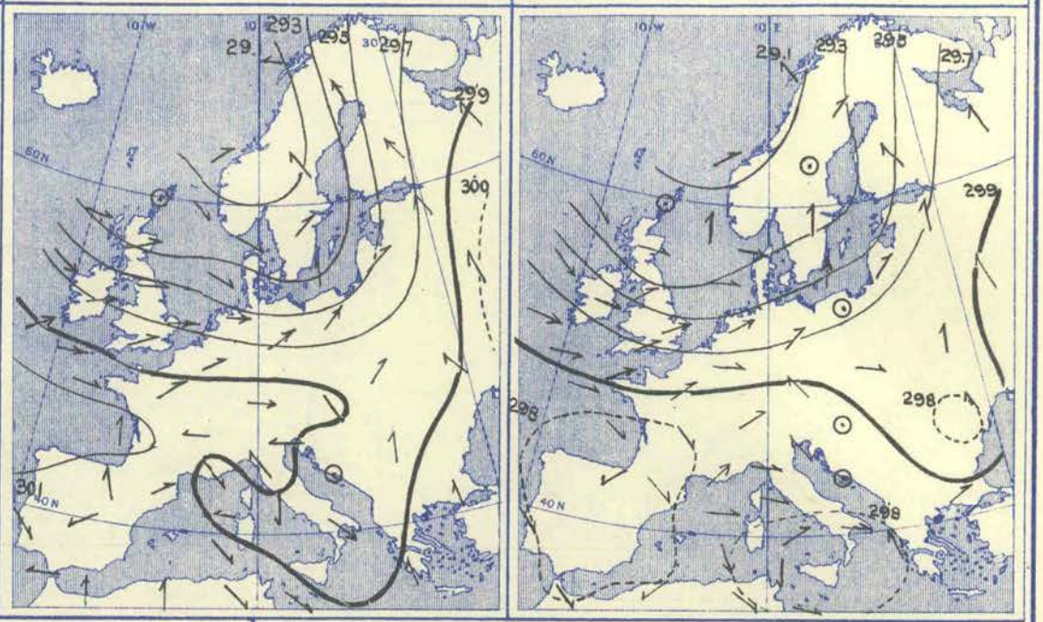


*Weather* in morning still squally and rough over the north-western and northern parts of Europe, but apparently scarcely so squally in our Islands as on Monday; very rough over the North Sea and Baltic, rather so in North Germany; comparatively fair over the south-east and south of Europe and the Mediterranean. Rain squalls later in all parts of our Islands and over the northern countries of Continental Europe—the amounts being large at Cuxhaven and some other stations to the eastward of the North Sea, very little sunshine in our Islands.

*Temperature* not changed much. Morning readings highest, 76° at Algiers, 71° at Tunis, 73° at Barcelona, above 60° at other Mediterranean stations and in the south and west of France; 62° at Scilly. Lowest, 47° at Bodö, 48° at Skudesnaes, 48° at Wick and Aberdeen, 50° at Nairn. Not exceeding 65° later at the bulk of our stations, 68° at Paris, but touching 77° at Perpignan, 80° at Brindisi and 86° at Algiers.

### Barometer and Wind.

8 a.m. 6 p.m.



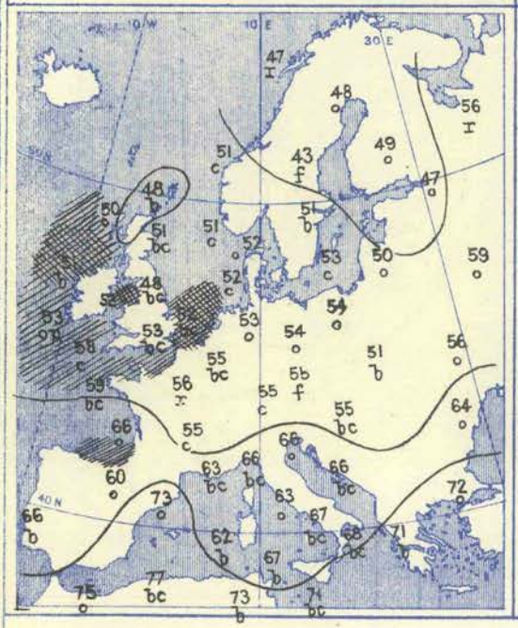
*Wind* mainly Westerly in the British Isles and the Netherlands, and blowing a gale in some places. South-Westerly to Southerly, strong in north Germany, Southerly to South-Easterly in Finland, Easterly over Lapland, light and variable over the southern half of Europe—no general change later.

*Barometer* (1) 30·1 ins. and more to 30·0 ins. over the Bay of Biscay and west of France; (2) 30·0 ins. and more to 29·9 ins. over the south-east of Russia. Lowest, 29·1 ins. and less in a depression over Norway, and below 29·3 ins. in the north of Scotland. Gradients steep over our Islands, the Netherlands, and north Germany. Changing irregularly over the northern parts of the German Ocean, and slightly elsewhere.

## Wednesday, 20th September.

### Temperature and Weather.

8 a.m.

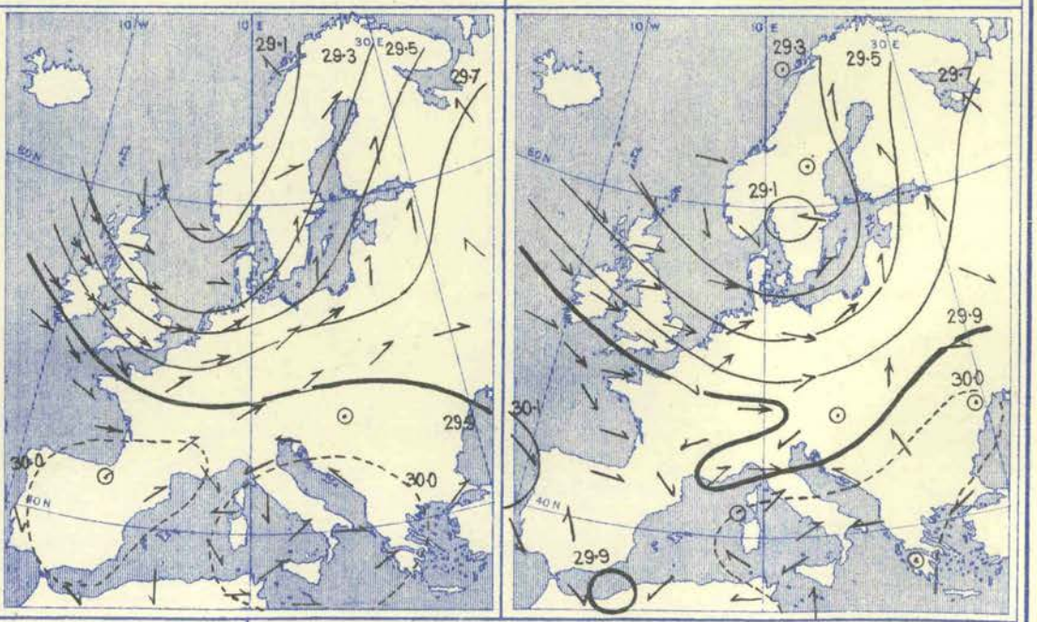


*Weather* in morning cloudy and still rather showery over the United Kingdom, squally in most places, very rough, unsettled and showery over the North Sea and Baltic, as well as the Netherlands, and many parts of France; fine over the Mediterranean and Spain. Some rain later in the west and north of our Islands, and the west of France; considerable quantities in countries lying to the eastward of the North Sea, and thunder in places. Becoming finer over the United Kingdom later, and clouds disappearing.

*Temperature* in morning 77° at Algiers, and still much above 70° on the southern and western sides of the Mediterranean, 60° and more in the south of France, and on the western shores of Portugal and France, 55° to 58° at our southern stations, and 56° at Archangel. Lowest, 43° at Hernösand, 47° at Bodö, 48° at Sumburgh Head, Nairn and Shields. Rising to a little above 60° at our southern stations during the day, to 65° at Paris, to 77° at Nice. Night becoming cold over the British Isles.

### Barometer and Wind.

8 a.m. 6 p.m.

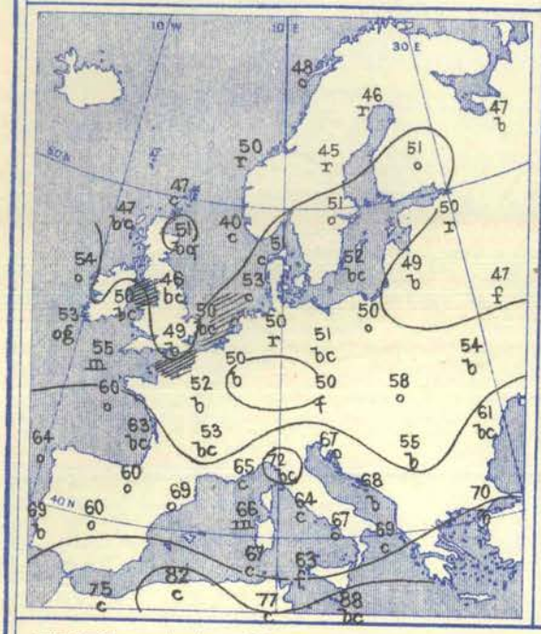


*Wind* (1) North-Westerly to Westerly in our Islands, South-Westerly over the Netherlands, Southerly over the Baltic; Easterly at Bodö, and in most places strong; (2) Light and variable over southern and south-eastern Europe. The North-Westerly wind on our own coasts falling moderate or light towards night, but blowing harder to the eastward of the North Sea.

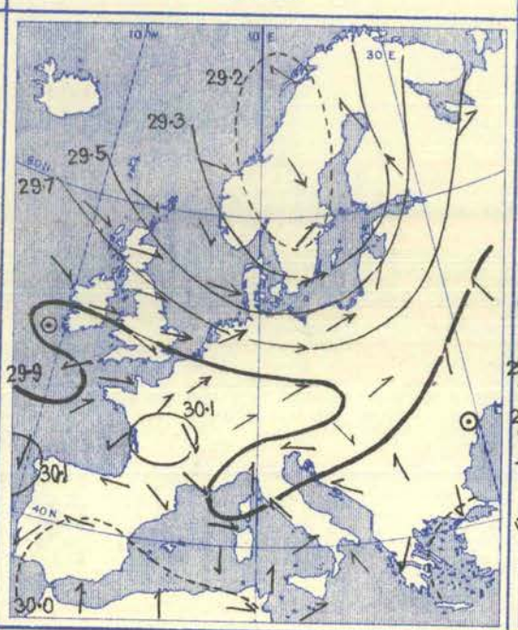
*Barometer* in morning 30·0 ins. and more over southern Europe as a whole, and exceeding 29·9 ins. off our south-western coasts. Lowest, 29·1 ins. and less over Norway, and below 29·2 ins. over Sweden and the northern half of the North Sea. Rising in France and our Islands later (most in the north); Scandinavia depression moving eastwards.

## Thursday, 21st September.

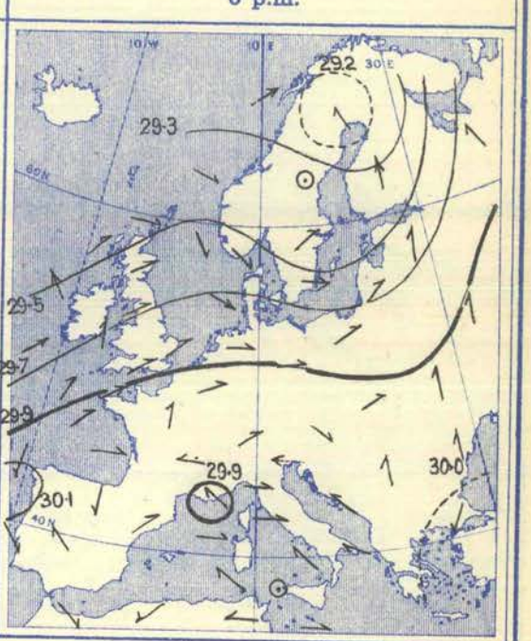
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over the major part of the British Islands, France, and the southern shores of the Mediterranean; dull, unsettled and rough over the eastern shores of the North Sea, over the Baltic and western Europe; and beginning to wear an unsettled appearance in the west and south of Ireland, and at Scilly and Jersey; considerable rain later over our Islands and their neighbourhood—large amounts in the north of Ireland, at Holyhead and at Cuxhaven; the south of France remaining quiet.

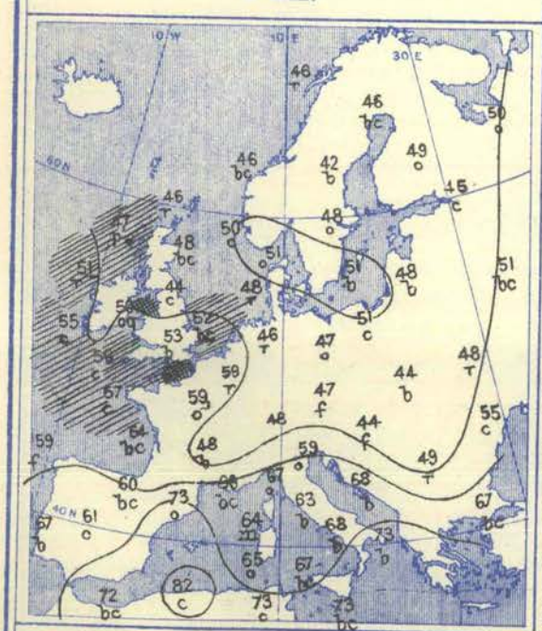
*Temperature* fallen over central, risen over northern Europe. Morning readings highest, 88° at Malta, 82° at Algiers, 75° to 65° over the Mediterranean, 60° and more in the west of France. Lowest, (1) 45° to 50° or a little more over northern Europe; 47° at Sumburgh Head and Stornoway; (2) 43° at Parsonstown, 46° at Shields, 48° to 49° over central England. Rising later to between 50° and 55° over northern Europe, to between 55° and 60° over Ireland and Scotland, to between 60° and 65° over England; to 57° at Berlin, 66° at Paris, and 84° at Nice.

*Wind* (1) Westerly, fresh to moderate over Great Britain; South-Westerly, strong, over north Germany; South-Easterly over Finland and Lapland; (2) light and variable over the central parts of the Continent; (3) light to moderate (but cyclonic) over the Mediterranean and Adriatic. Very strong South-West to North-West winds felt in our Islands at night.

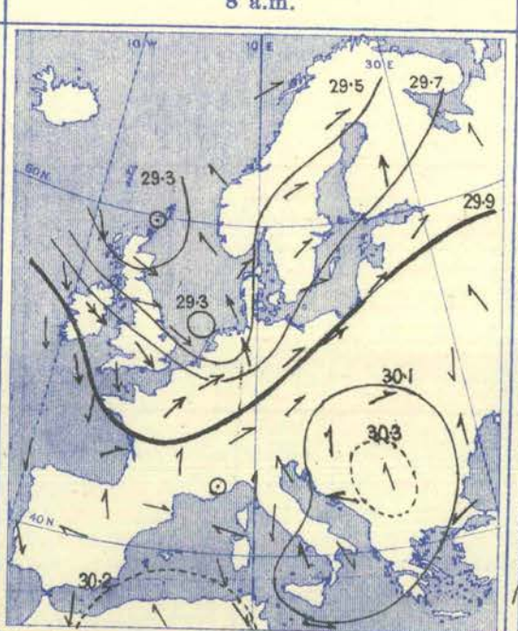
*Barometer* highest, 30·1 ins. and more over the south-western parts of France and exceeding 30·0 ins. over nearly the whole of that country, as well as in the Balkan Peninsula and south of Russia. Lowest, 29·2 ins. to 29·1 ins. in a depression over the north of Scandinavia and extending southwards over the Baltic, Germany and Denmark; (2) below 29·9 ins. in a small secondary to the westward of Scilly. Giving way rapidly in our Islands later; a depression passing north-eastwards up our north-west coasts, and a secondary over the south of England.

## Friday, 22nd September.

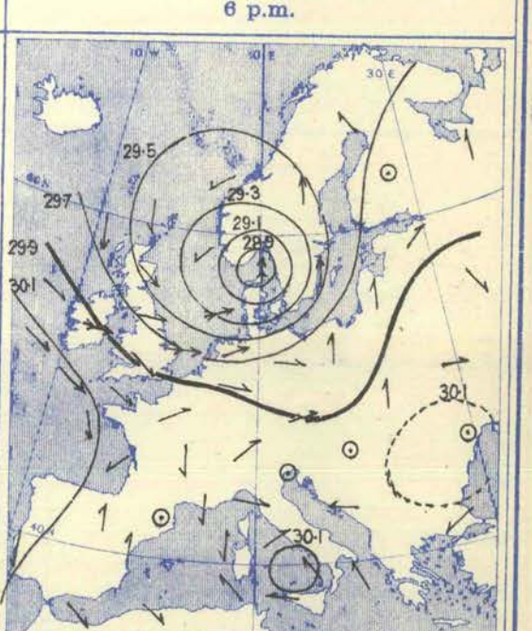
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning, (1) very unsettled over north-western Europe—rainy in many places, especially over the Netherlands and the north-western parts of Ireland, and squally generally. Strong north-west squalls over our Islands later, and rain at all the Irish and Scotch stations, as well as over the Continent—amount 1·06 ins. at Faerder.

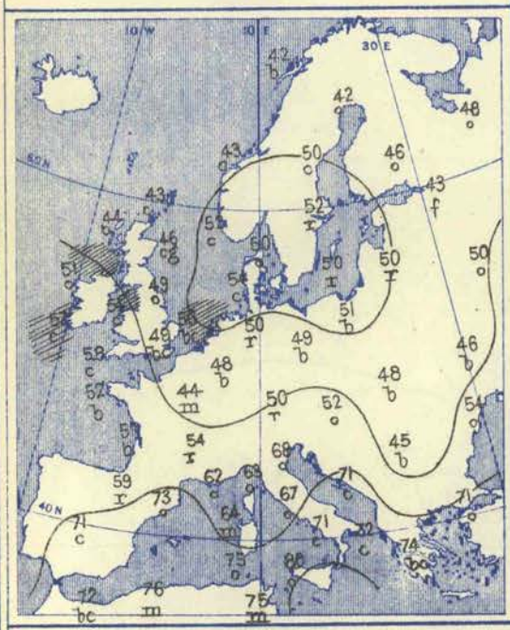
*Temperature* changing fitfully every few hours. Highest in morning again exceeding 80° at Algiers, and above 70° at many places on the southern and western shores of the Mediterranean; 56° to 50° on our south and south-west coasts, 50° at Archangel. Lowest, 46° in the north-west of Norway, 47° at Parsonstown, 44° to 49° over Scotland, the north-eastern and midland parts of England. Rising later to between 55° and 59° in Ireland, to more than 60° over our south-western and southern counties: to 61° at Berlin, 62° at Paris, 73° at Lyons and Nice, 77° at Marseilles, 81° at Rome, 95 at Palermo.

*Wind* varying greatly. (1) Light and variable over all the southern and south-eastern countries; (2) North-Westerly, very strong and squally over the British Isles. Westerly, a strong gale at the Helder; Southerly and South-Westerly, fresh to strong, over north Germany and Denmark; South-Westerly to South-Easterly, light, over Scandinavia. Remaining rough and squally from North-West over our Islands all day, and becoming strong from West in Holstein and Denmark.

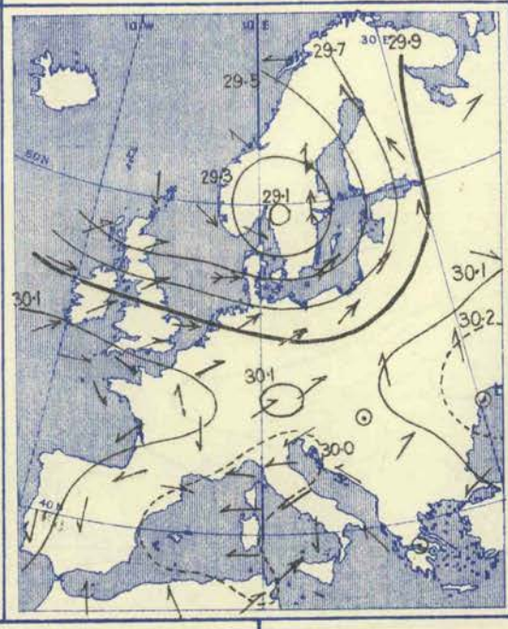
*Barometer* in morning highest, (1) 30·2 ins. to 30·0 ins. over south-eastern Europe; (2) exceeding 30·0 ins. in the south-west of Ireland, and over Spain and Portugal. Lowest, 29·3 ins. and less, (1) in a depression over the north of Scotland, and (2) in another (a deep secondary) over the north of Holland. Rising quickly in our Islands later, falling fast over Scandinavia and the Baltic, as the Dutch depression grew deeper and moved north-eastwards to the north of Denmark.

## Saturday, 23rd September.

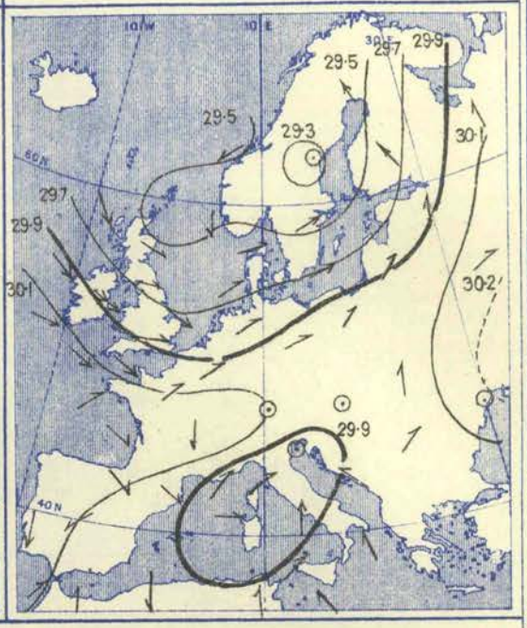
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning cloudy and not settled over the greater part of the United Kingdom, fine and quiet over France and Germany, very unsettled over the countries lying to the eastward and north-eastwards of the North Sea, fine in the north of Norway. Rain falling later almost everywhere, most over Sweden and the Baltic.

*Temperature* fallen fast over France, risen over Germany, changing fitfully (rising and falling frequently and suddenly), over our Islands. Morning readings highest, 80° at Palermo, 76° at Algiers, 73° at Barcelona, 58° to 49° over the southern parts of the British Islands; 52° to 50° over the Baltic. Lowest, 42° to 46° over northern Europe, 43° to 46° over the north of Scotland. Scarcely exceeding 50° in Scotland during the day, touching 60° at Roche's Point, 64° over some southern parts of England, 66° at Paris, 73° at Corunna, 77° at Perpignan.

*Wind* (1) Westerly (West-South-West to West-North-West) over the United Kingdom generally, fresh in force, Westerly to Southerly, strong over north Germany; Southerly, strong over the Baltic, South-Easterly over northern Europe; (2) light and very variable over the southern half of Europe. Increasing in strength over our north-western districts later, but moderating greatly over the North Sea.

*Barometer* in morning highest, (1) 30·2 ins. to 30·1 ins. over south-eastern Europe; (2) 30·1 ins. and more over the Bay of Biscay, western France, and the extreme south-west of our Islands. Lowest, about 29·0 ins. in a deep depression over the south-west of Norway, and below 29·5 ins. in a secondary, forming over the north of Scotland. Gradients very deep over Denmark and Holstein, Scotch disturbance developing and moving south-eastwards later, that over Sweden beginning to fill up.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During this week there has been a succession of depressions, appearing at first off our northern coasts, and subsequently moving either in an easterly direction over Norway or else in a south-easterly direction across the North Sea to Germany. In consequence there have been some days in which the wind over our Islands has been South-Westerly or Westerly and the air mild and close; others on which dry North-Westerly breezes have prevailed, strong to a gale in force at the exposed stations, and accompanied by sharp passing showers.

The rainfall has frequently been very considerable in these Islands, and heavy in north Germany; at Cuxhaven amounts exceeding an inch were recorded on three consecutive days, and on two other days the measurement exceeded half an inch, and at the Helder as well as on our north-west coasts the falls were heavy.

At the close of the week the centre of a new "swirl" lay between Scotland and the Shetlands, and the appearances pointed to an early renewal of cold squally North-Westerly winds all over the Kingdom.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 224.

| Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 34·1 | ? | 40 | ? | BRIGHTON | 49·0 | +11·7 | 58 | +15 |
| STRATHPEFFER SPA | 20·0 | − 7·8 | 24 | − 8 | WORTHING | 48·4 | ? | 57 | ? |
| EDINBURGH | | | | | BOGNOR | 44·7* | ? | 53* | ? |
| MORPETH | 47·1 | ? | 55 | ? | EASTBOURNE | 45·6 | + 7·8 | 54 | +10 |
| NEWCASTLE-ON-TYNE | 36·4 | ? | 43 | ? | VENTNOR HOSPITAL | 39·6 | ? | 47 | ? |
| OSWALDKIRK (Yorkshire) | 34·4 | + 7·5 | 40 | + 9 | SOUTHPORT | 31·5 | ? | 37 | ? |
| LOWESTOFT | 39·9 | ? | 47 | ? | COLWYN BAY | 31·6 | ? | 37 | ? |
| HOLLESLEY BAY | 47·8 | ? | 56 | ? | RHYL | 31·8* | ? | 37* | ? |
| SHEFFIELD | 29·3 | ? | 34 | ? | ABERDOVEY | 26·1* | ? | 31* | ? |
| WORKSOP | 25·1 | − 2·5 | 30 | − 2 | TENBY | 34·5 | − 0·7 | 41 | 0 |
| THURCASTON (Leicestershire) | 34·5 | + 6·7 | 41 | + 9 | NEWQUAY | 24·8 | −10·4 | 29 | −12 |
| MARGATE | 38·4 | + 5·4 | 45 | + 8 | TORQUAY | 36·4 | − 0·4 | 43 | 0 |
| WESTBOURNE (Emsworth) | 44·8* | + 7·2 | 53* | +11 | GUERNSEY | 39·9* | − 1·1 | 47* | 0 |
| WATERGATE (Emsworth) | 39·5 | ? | 46 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

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VOL. XVI. NO. 39.] *Third Series.* WEEK ENDING SATURDAY, SEPTEMBER 30TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 230.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 58 | 31 | 51·2 | 39·6 | 45·1 | 4 below | 32 | -27 | 7 | + 5 | 2004* | +314 | 624 | - 3 |
| | 1. SCOTLAND, EAST | 59 | 31 | 52·5 | 39·1 | 45·5 | 5 below | 37 | -29 | 8 | + 6 | 2211 | +157 | 677 | + 24 |
| | 2. ENGLAND, N.E. | 62 | 30 | 56·3 | 42·6 | 49·1 | 3 below | 50 | -31 | 0 | 0 | 2509 | +307 | 456 | - 93 |
| | 3. ENGLAND, EAST | 65 | 31 | 59·1 | 43·4 | 50·9 | 3 below | 62 | -27 | 0 | 0 | 2918 | +373 | 421 | -196 |
| | 4. MIDLAND COUNTIES | 65 | 31 | 57·3 | 42·1 | 49·4 | 3 below | 52 | -35 | 0 | - 1 | 2914 | +374 | 478 | -142 |
| | 5. ENGLAND, SOUTH | 69 | 37 | 60·3 | 46·3 | 52·9 | 2 below | 76 | -21 | 0 | 0 | 3262 | +504 | 294 | -183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 57 | 30 | 53·7 | 41·8 | 47·5 | 3 below | 39 | -33 | 1 | + 1 | 2360 | +217 | 414 | - 48 |
| | 7. ENGLAND, N.W. | 59 | 34 | 55·7 | 44·1 | 49·6 | 3 below | 53 | -30 | 0 | 0 | 2722 | +379 | 313 | -146 |
| | 8. ENGLAND, S.W. | 66 | 32 | 58·1 | 46·0 | 51·8 | 2 below | 69 | -22 | 0 | 0 | 3136* | +559 | 240 | -121 |
| | 9. IRELAND, NORTH | 62 | 29 | 55·1 | 41·2 | 47·8 | 3 below | 44 | -25 | 2 | + 2 | 2557 | +296 | 325 | - 70 |
| | 10. IRELAND, SOUTH | 63 | 29 | 56·4 | 43·6 | 49·7 | 3 below | 54 | -26 | 0 | - 1 | 2983* | +427 | 245 | - 55 |
| | —CHANNEL ISLANDS | 66 | 47 | 60·8 | 52·3 | 56·4 | 1 below | 101 | - 5 | 0 | 0 | 3657 | +764 | 81 | - 67 |

### Rainfall. / Bright Sunshine.

| | DISTRICTS. (See p. 230.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 7 | 19 | 8 more | 166 | -10 | 34·8 | + 0·7 | 17 | - 7 | 20 | - 8 | 1098 | +151 | 30 | + 5 |
| | 1. SCOTLAND, EAST | 7 | 20 | 13 more | 152 | + 8 | 24·5 | + 1·7 | 19 | - 5 | 24 | - 5 | 1176 | + 70 | 32 | + 2 |
| | 2. ENGLAND, N.E. | 6 | 13 | 7 more | 133 | - 1 | 17·9 | - 0·8 | 20 | - 5 | 24 | - 6 | 1165 | + 91 | 33 | + 3 |
| | 3. ENGLAND, EAST | 6 | 13 | 6 more | 120 | -10 | 15·9 | - 2·7 | 38 | + 6 | 46 | + 8 | 1617 | +256 | 44 | + 7 |
| | 4. MIDLAND COUNTIES | 6 | 11 | 4 more | 119 | - 9 | 18·8 | - 1·4 | 30 | + 4 | 36 | + 5 | 1430* | +294 | 41 | + 8 |
| | 5. ENGLAND, SOUTH | 6 | 15 | 8 more | 103 | -20 | 16·6 | - 3·5 | 33 | + 1 | 41 | + 2 | 1727 | +334 | 48 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 7 | 17 | 6 more | 162 | +11 | 35·5 | + 0·5 | 21 | - 5 | 26 | - 6 | 1203 | + 31 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 7 | 15 | 5 more | 143 | + 7 | 26·5 | + 2·2 | 24 | 0 | 29 | 0 | 1390 | +217 | 39 | + 6 |
| | 8. ENGLAND, S.W. | 7 | 18 | 8 more | 130 | - 9 | 27·2 | - 0·3 | 31 | - 1 | 38 | 0 | 1676 | +255 | 47 | + 7 |
| | 9. IRELAND, NORTH | 7 | 15 | 6 more | 170 | + 6 | 27·3 | + 0·7 | 23 | - 1 | 29 | 0 | 1213 | +140 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 6 | 9 | 1 more | 141 | - 7 | 29·7 | + 1·8 | 29 | 0 | 35 | 0 | 1373 | +155 | 38 | + 4 |
| | — CHANNEL ISLANDS | 7 | 18 | 10 more | 123* | -24 | 19·7* | - 2·4 | 27 | -17 | 33 | -20 | 1839 | +263 | 54 | + 8 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this week was extremely unsettled, and much rain fell in all parts of the Kingdom, accompanied at times by thunder and lightning. In many parts of England, however, there were frequent intervals of bright sunshine.

*Temperature* was below the mean, the deficit ranging from 1° in the Channel Islands, to 4° in Scotland N., and 5° in Scotland E. The highest of the maxima were registered, as a rule, on the 25th, and ranged from 69° in England S., to 58° in Scotland N., and 57° in Scotland W. The lowest of the minima were recorded during the latter half of the period, and ranged from 29° in the Irish districts, 30° in England N.E. and Scotland W., and 31° in several other districts, to 37° in England S., and to 47° in the Channel Islands.

*Rainfall* exceeded the mean in all districts, the fall, in most cases, being more than twice as much as the normal value.

*Bright Sunshine* exceeded the mean amount in England E., the Midland Counties and England S., and just equalled it in several western districts ; elsewhere there was a deficiency, that in Scotland N. and the Channel Islands being large. The percentage of the possible duration ranged from 46 in England E., and 41 in England S., to 24 in England N.E. and Scotland E., and to 20 in Scotland N.

*Barometer and Wind.*—During the whole of the period depressions moved eastward over our Islands and their neighbourhood, causing fresh or strong winds between South-West and West, or North-West to prevail very generally, and to increase to a slight gale in several exposed situations on Friday night. At the end of the week the centre of a small depression lay over central England, causing a complete cyclonic circulation of fresh or strong winds over the United Kingdom.

* This value has been altered owing to the receipt of further information for a preceding week.

207 | 90 Wy. & S., Ltd.
913 | 70 9 | 99.

# II.—DATA from which the SUMMARY on page 229 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 53 | 36 | 50·4 | 39·9 | 44·9 | - 3·7 | 29 | 6 | 5 | 0·82 | 0·00 | * | * | * | * |
| | Stornoway | 55 | 35 | 51·7 | 39·0 | 45·1 | - 3·7 | 34 | 8 | 7 | 2·18 | + 1·16 | 21·5 | - 1·2 | 27 | 0 |
| | Wick | 55 | 35 | 52·3 | 40·7 | 46·2 | - 3·4 | 35 | 4 | 7 | 1·18 | + 0·00 | * | * | * | * |
| | Lairg Ⓢ | 58 | 35 | 52·6 | 39·0 | 45·5 | - 2·4 | 37 | 8 | 7 | 1·15 | + 0·33 | * | * | * | * |
| | Glencarron Ⓢ | 50 | 35 | 48·5 | 39·0 | 43·5 | - 5·1 | 23 | 8 | 7 | 5·27 | + 3·45 | * | * | * | * |
| | Fort Augustus Ⓢ | 52 | 31 | 50·9 | 38·6 | 44·5 | - 6·1 | 32 | 10 | 7 | 1·06 | + 0·08 | 12·4 | - 4·4 | 15 | - 5 |
| | Fort William Ⓢ | 53 | 34 | 52·1 | 41·1 | 46·3 | - 4·6 | 34 | 3 | 7 | 1·40 | - 0·34 | 10·5 | -11·2 | 13 | -12 |
| 1. SCOTLAND E. | Nairn | 53 | 31 | 51·9 | 38·1 | 44·7 | - 5·5 | 35 | 11 | 7 | 1·10 | + 0·46 | * | * | * | * |
| | Aberdeen | 56 | 38 | 53·0 | 40·9 | 46·7 | - 3·9 | 38 | 3 | 6 | 1·39 | + 0·67 | 21·3 | - 4·5 | 26 | - 6 |
| | Braemar Ⓢ | 50 | 33 | 48·2 | 36·2 | 41·9 | - 5·2 | 17 | 23 | 7 | 2·74 | + 2·00 | 13·7† | -10·2† | 17† | -11† |
| | Ochtertyre Ⓢ | 59 | 31 | 55·0 | 39·0 | 46·6 | - 3·7 | 45 | 8 | 6 | 2·62 | + 1·75 | * | * | * | * |
| | Leith Ⓢ | 59 | 38 | 53·9 | 40·9 | 47·1 | - 5·0 | 40 | 3 | 7 | 2·26 | + 1·72 | * | * | * | * |
| | Marchmont Ⓢ | 55 | 35 | 53·1 | 39·3 | 45·9 | - 3·7 | 39 | 8 | 6 | 1·92 | + 1·12 | 24·0 | + 0·3 | 29 | 0 |
| 2. ENGLAND, N.E. | Alnwick Castle | 58 | 30 | 55·5 | 41·4 | 48·1 | - 2·6 | 45 | 2 | 6 | 1·85 | + 1·13 | * | * | * | * |
| | Durham | 58 | 31 | 56·4 | 40·9 | 48·3 | - 2·9 | 49 | 3 | 7 | 1·16 | + 0·52 | 14·5 | - 9·7 | 18 | -12 |
| | Shields | 57 | 37 | 55·6 | 41·9 | 48·4 | - 3·3 | 45 | 0 | 6 | 0·91 | + 0·34 | * | * | * | * |
| | Scarborough Ⓜ | 58 | 40 | 56·1 | 42·6 | 49·0 | - 3·7 | 49 | 0 | 5 | 1·70 | + 1·03 | * | * | * | * |
| | Spurn Head | 62 | 45 | 58·0 | 46·4 | 51·9 | - 2·2 | 69 | 0 | 5 | 0·80 | + 0·30 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 61 | 35 | 59·2 | 42·3 | 50·3 | - 2·8 | 58 | 0 | 5 | 1·33 | + 0·68 | 40·5 | +11·7 | 49 | +14 |
| | Yarmouth | 60 | 40 | 57·0 | 44·1 | 50·2 | - 4·0 | 57 | 0 | 6 | 1·40 | + 0·70 | * | * | * | * |
| | Geldeston | 63 | 32 | 60·1 | 42·9 | 51·1 | - 2·7 | 64 | 0 | 6 | 1·72 | + 1·10 | 40·1 | + 6·3 | 49 | + 8 |
| | Cambridge | 65 | 34 | 60·8 | 43·0 | 51·5 | - 2·1 | 67 | 0 | 6 | 0·95 | + 0·41 | 32·6 | + 2·0 | 40 | + 3 |
| | Felixstowe | 63 | 40 | 59·3 | 46·1 | 52·4 | - 1·9 | 73 | 0 | 5 | 0·98 | ? | 40·3 | ? | 49 | ? |
| | Rothamsted | 64 | 31 | 58·4 | 41·9 | 49·8 | - 2·8 | 55 | 0 | 6 | 1·14 | + 0·46 | 34·6 | + 4·6 | 42 | + 6 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 59 | 31 | 57·7 | 40·3 | 48·6 | - 3·8 | 53 | 5 | 6 | 0·82 | + 0·22 | * | * | * | * |
| | Loughborough | 62 | 33 | 58·7 | 42·1 | 50·0 | - 3·2 | 56 | 0 | 6 | 1·06 | + 0·45 | * | * | * | * |
| | Stamford (Ketton) | 62 | 31 | 58·9 | 41·4 | 49·7 | - 3·9 | 56 | 2 | 5 | 1·24 | + 0·53 | * | * | * | * |
| | Cheadle Ⓜ | 57 | 37 | 53·6 | 42·2 | 47·6 | - 3·7 | 39 | 0 | 6 | 1·29 | + 0·60 | * | * | * | * |
| | Shirley (near Solihull) | 60 | 36 | 56·8 | 42·2 | 49·2 | - 3·1 | 50 | 0 | 7 | 1·19 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 63 | 37 | 56·0 | 42·8 | 49·1 | - 1·7 | 50 | 0 | 7 | 1·53 | + 0·83 | 32·9 | + 5·6 | 40 | + 7 |
| | Hereford (Belmont) Ⓜ | 65 | 36 | 58·1 | 43·1 | 50·2 | - 2·4 | 57 | 0 | 5 | 0·99 | + 0·31 | * | * | * | * |
| | Cirencester | 61 | 34 | 57·6 | 41·1 | 49·0 | - 2·6 | 53 | 3 | 7 | 0·60 | - 0·13 | 34·2 | + 7·3 | 42 | + 9 |
| | Oxford | 65 | 39 | 58·4 | 44·0 | 50·9 | - 2·5 | 62 | 0 | 7 | 0·87 | + 0·20 | 29·8 | 0·0 | 36 | 0 |
| 5. ENGLAND, S. | London | 68 | 37 | 61·6 | 44·6 | 52·7 | - 1·4 | 75 | 0 | 6 | 1·48 | + 0·88 | 28·7† | + 4·2† | 35† | + 4† |
| | Cranley Ⓜ | 67 | 39 | 60·8 | 45·6 | 52·8 | - 1·4 | 76 | 0 | 5 | 1·71 | ? | * | * | * | * |
| | Dungeness | 65 | 39 | 60·4 | 47·9 | 53·9 | - 1·8 | 83 | 0 | 7 | 1·63 | + 0·92 | * | * | * | * |
| | Hastings (St. Leonards) | 63 | 43 | 59·3 | 47·4 | 53·1 | - 2·2 | 78 | 0 | 7 | 2·97 | + 2·20 | 36·1 | + 0·5 | 44 | + 1 |
| | Southampton | 69 | 38 | 62·0 | 45·8 | 53·5 | - 1·7 | 81 | 0 | 6 | 0·85 | + 0·09 | 34·7 | + 3·0 | 42 | + 3 |
| | Portland Bill | 62 | 45 | 59·3 | 50·4 | 54·6 | - 0·8 | 88 | 0 | 6 | 0·68 | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 64 | 38 | 58·6 | 42·2 | 50·0 | - 2·3 | 56 | 0 | 7 | 1·08 | + 0·21 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 55 | 35 | 53·1 | 40·9 | 46·7 | - 4·0 | 38 | 3 | 7 | 1·43 | - 0·34 | * | * | * | * |
| | Glasgow | 55 | 36 | 52·2 | 41·8 | 46·8 | - 2·9 | 34 | 1 | 7 | 1·64 | + 0·79 | 18·0 | - 2·6 | 22 | - 4 |
| | Glenlee Ⓢ | 56 | 30 | 53·9 | 40·6 | 46·9 | - 3·7 | 40 | 4 | 7 | 2·25 | + 1·04 | * | * | * | * |
| | Douglas (Isle of Man) | 57 | 36 | 55·6 | 43·9 | 49·5 | - 2·3 | 53 | 0 | 7 | 1·54 | + 0·74 | 24·1 | - 7·8 | 29 | -10 |
| 7. ENGLAND, N.W. | Newton Reigny | 58 | 34 | 54·9 | 39·4 | 46·8 | - 3·6 | 45 | 7 | 6 | 1·90 | ? | 19·5 | ? | 24 | ? |
| | Stonyhurst | 58 | 34 | 54·3 | 42·3 | 48·0 | - 3·6 | 42 | 0 | 6 | 2·04 | + 0·90 | 27·8 | + 0·2 | 34 | + 1 |
| | Blackpool Ⓜ | 59 | 36 | 57·0 | 44·8 | 50·6 | - 2·2 | 60 | 0 | 7 | 1·01 | + 0·07 | 29·4 | + 2·9 | 36 | + 4 |
| | Manchester (Prestwich) | 58 | 35 | 55·6 | 42·7 | 48·8 | - 3·0 | 48 | 0 | 7 | 1·58 | + 0·60 | 15·2 | ? | 18 | ? |
| | Liverpool Obsy. (Bidston) | 59 | 40 | 55·6 | 45·6 | 50·4 | - 3·0 | 59 | 0 | 7 | 0·86 | + 0·02 | 25·3 | ? | 31 | ? |
| | Llandudno Ⓜ | 59 | 43 | 56·9 | 47·7 | 52·1 | - 2·4 | 71 | 0 | 7 | 1·61 | + 0·81 | 22·4 | - 2·9 | 27 | - 4 |
| | Holyhead | 58 | 44 | 55·4 | 46·4 | 50·7 | - 3·9 | 61 | 0 | 6 | 1·16 | + 0·36 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 62 | 32 | 58·3 | 41·0 | 49·2 | - 2·4 | 55 | 3 | 7 | 1·81 | + 0·66 | * | * | * | * |
| | Pembroke | 58 | 45 | 55·9 | 48·1 | 51·8 | - 2·8 | 69 | 0 | 7 | 0·70 | - 0·18 | 22·9 | - 8·2 | 28 | - 9 |
| | Clifton | 62 | 42 | 57·7 | 46·9 | 52·0 | - 1·2 | 79 | 0 | 7 | 2·40 | + 1·55 | * | * | * | * |
| | Arlington (N. Devon) | 60 | 40 | 56·1 | 44·9 | 50·2 | - 2·5 | 57 | 0 | 7 | 3·13 | + 1·96 | * | * | * | * |
| | Cullompton Ⓜ | 66 | 36 | 60·2 | 44·4 | 51·9 | - 2·4 | 69 | 0 | 7 | 0·95 | + 0·08 | 29·9 | + 0·4 | 36 | + 1 |
| | Falmouth | 64 | 44 | 58·8 | 48·6 | 53·5 | - 1·7 | 81 | 0 | 7 | 2·66 | + 1·56 | 39·2 | + 6·2 | 48 | + 9 |
| | Plymouth | 64 | 43 | 59·9 | 48·2 | 53·8 | - 1·3 | 83 | 0 | 7 | 0·66 | - 0·24 | 32·4 | + 0·4 | 40 | + 1 |
| 9. IRELAND, N. | Malin Head | 59 | 40 | 54·6 | 45·7 | 49·9 | - 2·1 | 55 | 0 | 6 | 1·58 | ? | * | * | * | * |
| | Londonderry | 60 | 35 | 55·5 | 40·6 | 47·7 | - 4·0 | 46 | 4 | 7 | 1·51 | + 0·61 | * | * | * | * |
| | Edenfel (Omagh) | 58 | 34 | 53·9 | 40·0 | 46·6 | - 2·9 | 41 | 6 | 7 | 1·75 | + 0·90 | * | * | * | * |
| | Belmullet | | | | | | | | | | | | | | | |
| | Markree Castle | 62 | 29 | 55·4 | 39·6 | 47·1 | - 3·6 | 46 | 7 | 7 | 1·24 | + 0·33 | 19·5 | - 3·1 | 24 | - 3 |
| | Armagh | 59 | 33 | 55·7 | 39·2 | 47·1 | - 3·7 | 47 | 8 | 7 | 1·68 | + 1·04 | 27·3 | + 1·3 | 33 | + 2 |
| | Donaghadee | 59 | 36 | 55·4 | 42·1 | 48·4 | - 3·9 | 45 | 0 | 7 | 0·97 | + 0·33 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 62 | 39 | 55·9 | 43·2 | 49·3 | - 3·7 | 51 | 0 | 6 | 1·28 | + 0·74 | 29·0 | - 1·8 | 35 | - 2 |
| | Parsonstown | 62 | 29 | 55·6 | 40·6 | 47·7 | - 3·4 | 46 | 4 | 7 | 0·81 | + 0·04 | 29·4 | + 1·4 | 36 | + 3 |
| | Kilkenny | 62 | 35 | 56·6 | 41·0 | 48·4 | - 4·6 | 49 | 3 | 6 | 0·65 | + 0·07 | * | * | * | * |
| | Roche's Point | 63 | 40 | 57·4 | 46·0 | 51·4 | - 2·3 | 66 | 0 | 4 | 0·23 | - 0·58 | * | * | * | * |
| | Valencia | 62 | 35 | 56·9 | 46·9 | 51·7 | - 2·9 | 68 | 0 | 7 | 1·12 | + 0·13 | 29·0 | + 0·3 | 35 | 0 |
| | Killarney | | | | | | | | | | | | * | * | * | * |
| | Foynes | 62 | 37 | 55·9 | 44·1 | 49·7 | - 2·9 | 54 | 0 | 7 | 1·17 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 66 | 48 | 60·6 | 52·0 | 56·1 | - 0·5 | 99 | 0 | 7 | 1·60 | + 0·72 | 38·5 | ? | 47 | ? |
| | Jersey | 65 | 47 | 61·0 | 52·6 | 56·6 | - 1·4 | 102 | 0 | 7 | 2·05 | + 1·18 | 21·8 | -16·2 | 27 | -20 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observation made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

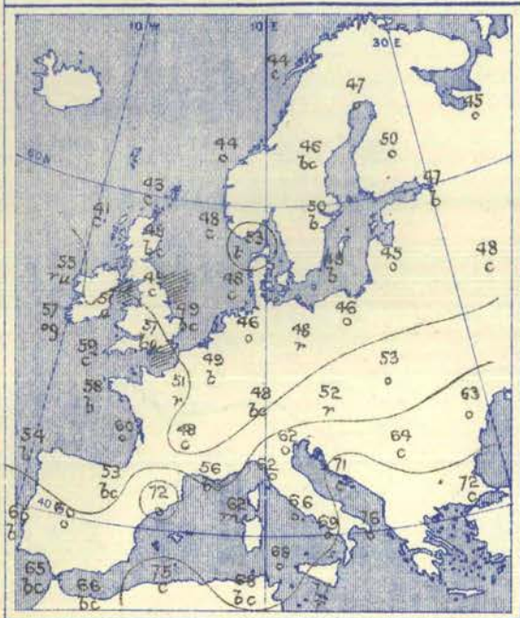
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

NOTE.—It will be observed that the Reports from Newton Reigny have recommenced.

## Sunday, 24th September.

### Temperature and Weather.

**8 a.m.**

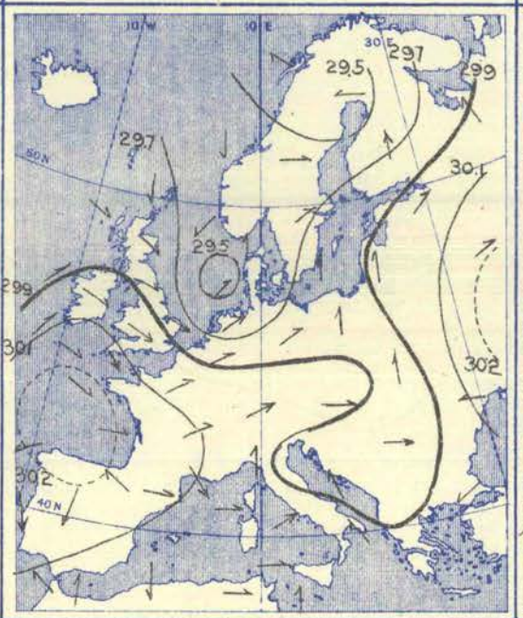


*Weather* in morning unsettled all over the British Islands, north-western and central Europe, though temporarily clear at some stations. Raining in many parts of our Islands, as well as at Paris, Berlin and Karlstad, thundering at Brussels and the Scaw. Rain falling later in all parts of the British Islands and their neighbourhood, as well as over Sweden, Germany, and Austria.

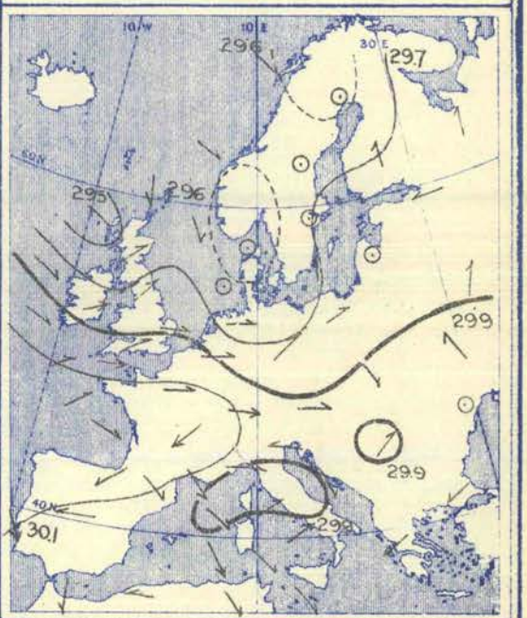
*Temperature* not changing much, but inclined to fall in some localities. Morning readings highest, 77° at Malta, 76° at Brindisi, 75° at Algiers, 72° at Barcelona; 60° at Rochefort, 59° at Scilly, 54° at Dungeness. Lowest, 43° at Sumburgh Head, 44° in the north-west of Norway, 45° at Nairn, 48° at Aberdeen, 49° at Malin Head and Shields. Rising later to above 50° in Scotland, to between 60° and 64° in the south of England, 65° at Paris, 73° at Belfort, 79° at Madrid, 82° at Malta, Algiers, and Sfax.

### Barometer and Wind.

**8 a.m.**



**6 p.m.**



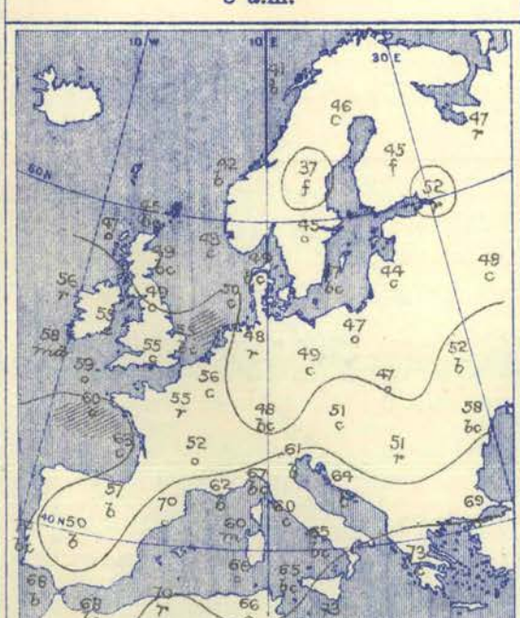
*Wind* light to moderate, and very variable in direction over the southern half of Europe. Stronger and cyclonic in the North. (Southerly over Finland, Northerly to North-Westerly over the North Sea and east of England.) A Southerly to South-Westerly wind setting in again over Ireland, and spreading Eastwards. Shifting to North-West, and increasing over Ireland later, backing to South-West over England. A separate cyclonic circulation shown over the northern parts of the Mediterranean.

*Barometer* in morning highest, (1) 30·3 ins. to 30·1 ins. over the south-east of Russia; (2) 30·2 ins. and more to 30·1 ins. over the Bay of Biscay, the west of France, and extreme south-west of our Islands. Lowest, 29·5 ins. and less in a depression over the eastern side of the North Sea; below 29·8 ins. off the north-west of our Islands. Former depression moving north-eastwards later. New "V"-shaped disturbance advancing over the north-west of Scotland.

## Monday, 25th September.

### Temperature and Weather.

**8 a.m.**



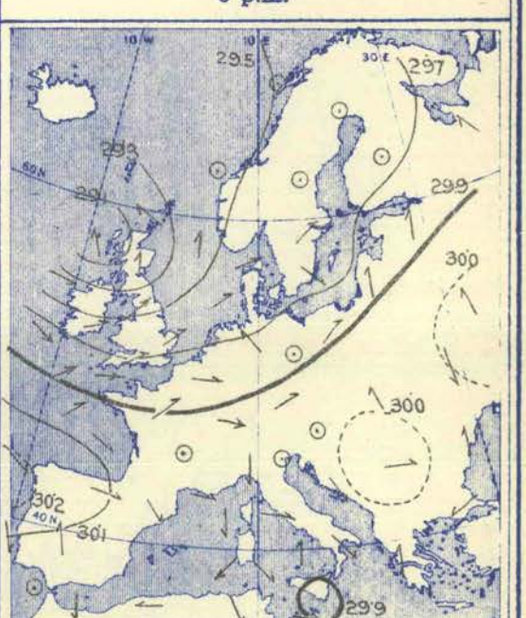
*Weather* in morning fine over Spain, fair and mild over France, and the south-east of England; unsettled over the Netherlands, and also in Ireland, where rain was already falling. Rain later in small quantities all over our Islands and their neighbourhood, and air becoming milder and softer.

*Temperature* risen generally over western Europe. Morning readings highest, (1) 70° at Algiers and Lisbon, 63° to 60° in the west of France, 61° at Jersey, 59° at Scilly, and exceeding 57° all along our southern coasts. Lowest, (1) 43° at Warsaw, and 47° to 49° over the north-east of Germany; (2) 37° at Hernösand and Karlstad, 41° to 42° in the north-west of Norway, 45° at Sumburgh Head, 49° at Aberdeen. Rising later to 60° at Loughborough, 68° in London, 71° at Paris, 75° at Nice.

### Barometer and Wind.

**8 a.m.**

**6 p.m.**



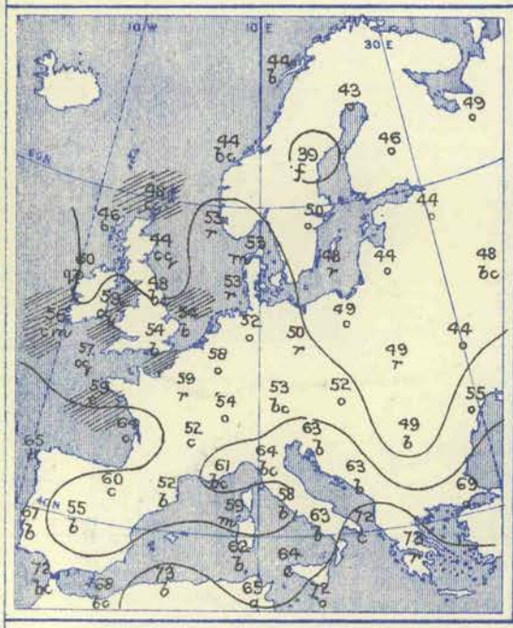
*Wind* very variable, (1) light over Spain, the southern parts of France, and south-eastern Europe; (2) stronger over the northern countries, and mainly Westerly to North-Westerly over England, South-Westerly over the north and north-west of Germany, Southerly over the Baltic; but South-Westerly in Ireland and inclined to freshen. Veering again in the latter region later, but becoming very strong on our north-western coasts, while an Easterly breeze set in at Sumburgh Head.

*Barometer* highest, (1) 30·2 ins. and more to 30·1 ins. over Spain and the south-west of France; (2) 30·1 ins. and more over the south-east of Russia. Lowest, 29·5 ins. and less over the north-west of Scotland, and below 29·6 ins. over the North Sea and Norway generally, as well as Denmark and the south of Sweden. Deep depression approaching Scotland later, and weather over our Islands unsettled with a tendency to become still more so.

## Tuesday, 26th September.

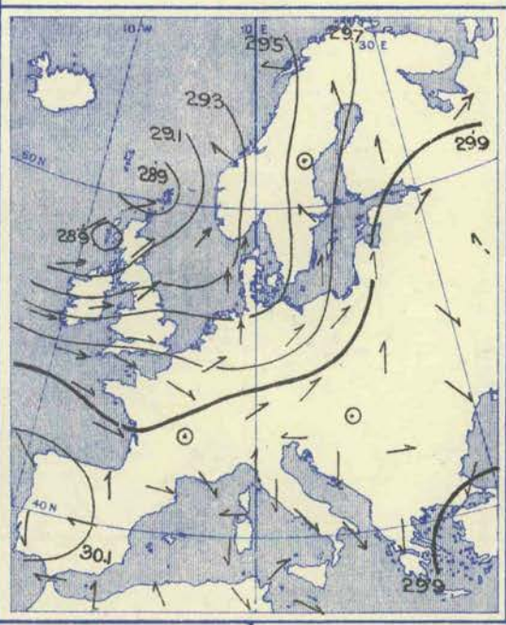
### Temperature and Weather.

8 a.m.

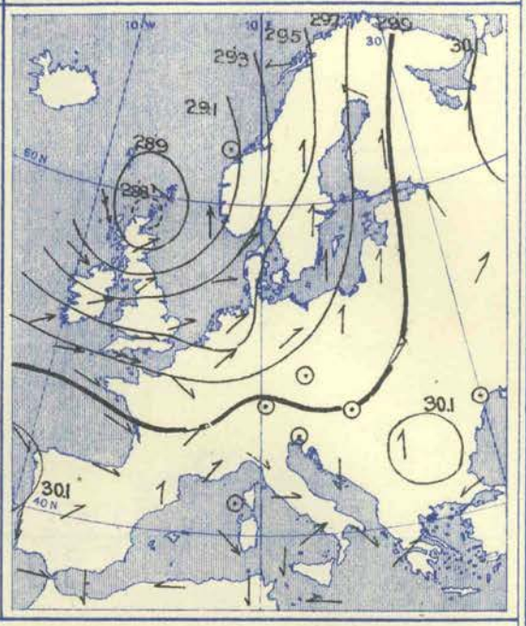


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning rough and unsettled over our Islands and their neighbourhood—dull and rainy in many places, but mild; finer over France and south-eastern Europe. Rain falling generally, but not heavily, later; lightning seen over central and southern England, and thunderstorms occurring over the eastern parts of the North Sea.

*Temperature* decreasing over our Islands and north-western Europe. Morning readings highest, 73° at Algiers, 72° at Brindisi and at San Fernando, 59° in the west of France, 57° on the south-west coast of England. Lowest, 44° in Lapland, 43° to 49° over northern Europe generally, 44° to 48° in Scotland. Rising later to 53° in the north of the British Isles, 60° in the south, 63° at Berlin, 68° at Paris, 78° at Perpignan.

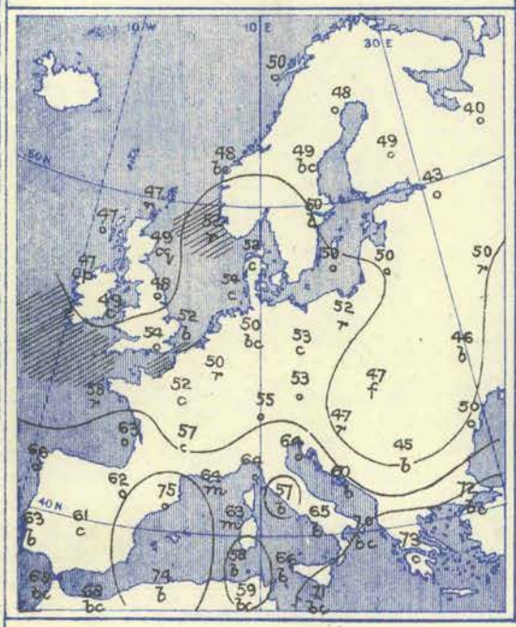
*Wind* light and very variable over the south-western, southern, and south-eastern parts of Europe. Strong and cyclonic in the north-west, Westerly in Ireland, Southerly over the countries lying to the eastward of the North Sea, South-Easterly to Easterly over northern Europe. A moderate gale reported at some of our western stations.

*Barometer* highest, (1) 30·0 ins. to 29·9 ins., over most of the countries in southern Europe. Lowest, 28·9 ins. and less in a complex depression over the north-west and north of Scotland, and below 29·3 ins. in a secondary over the North Sea. Depression in the north moving north-eastwards later, and beginning to fill up; but barometer falling at our southern stations.

## Wednesday, 27th September.

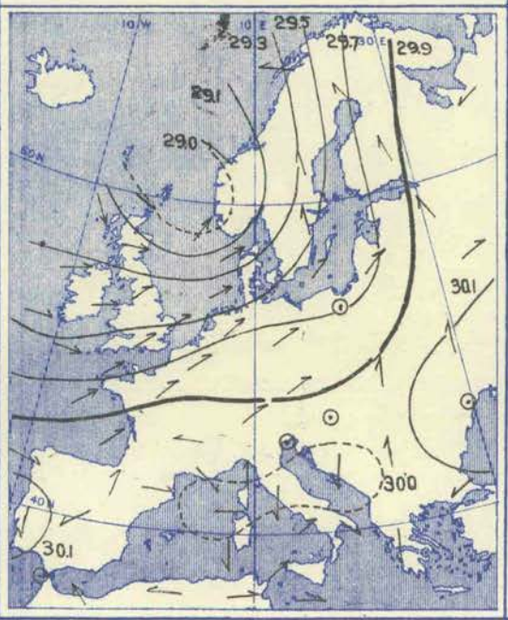
### Temperature and Weather.

8 a.m.

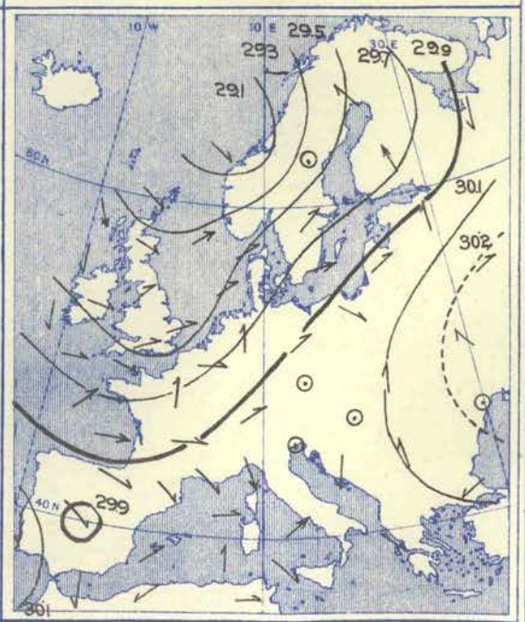


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning very unsettled and rough over the North Sea, Denmark, Scandinavia, and the Baltic; inclined to improve a little over England, and clearing decidedly over Ireland; fair over France, and decidedly fine over the Mediterranean, south-eastern and south-western Europe. Rain falling later in all parts of north-western Europe, thunderstorms in many places, and some of the showers very heavy locally.

*Temperature* beginning to fall over Ireland, rising over Sweden. Morning readings highest, 75° at Barcelona, 74° at Algiers, 70° at Brindisi, 63° to 62° in the south-west of France, 56° to 54° on the south coast of England. Lowest, 40° at Archangel, 45° at Nairn and Parsonstown, 48° on the north-east coast of England, 49° both at Loughborough, at Hernösand and Kuopio. Rising to 60° or a little more later over our southern counties, to 61° at Berlin, 63° at Paris, and 73° at Nice.

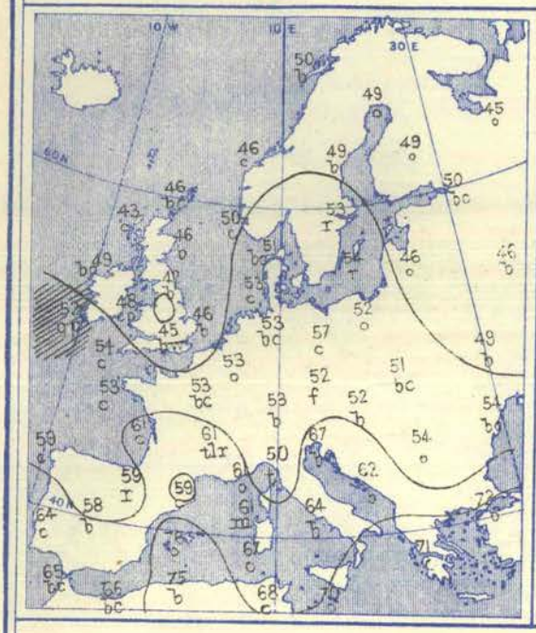
*Wind* (1) very light and variable over southern Europe; (2) light from the Westward over Ireland, moderate from South-West over England, strong to a gale from the Southward over the Gulf of Finland, and the eastern parts of the North Sea. Shifting to between West and North over our Islands later, and moderating from South-West over the North Sea.

*Barometer* highest, 30·1 ins. and more over Portugal, and also over the Black Sea and south-eastern Europe; 30·0 ins. over the southern parts of France and Austria; exceeding 29·8 ins. all over the southern half of France. Lowest, 29·0 ins. and less in a depression between the Shetlands and Norway. The depression filling up quickly later, and an anticyclonic ridge advancing over the British Isles from the westward.

## Thursday, 28th September.

### Temperature and Weather.

#### 8 a.m.

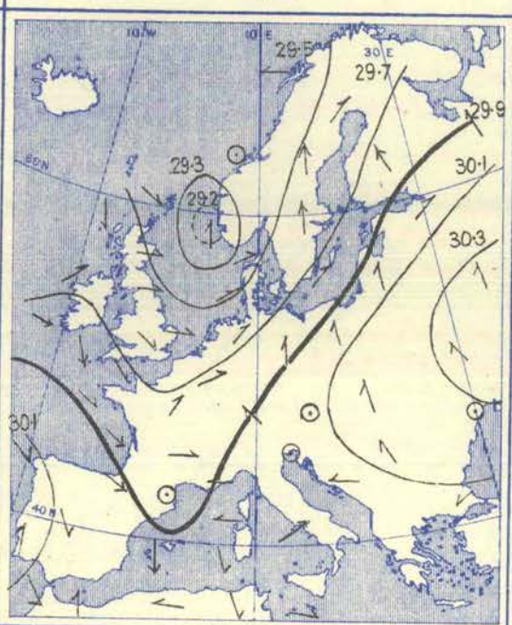


*Weather* in morning fine and bright over some parts of eastern and central Europe, and in many parts of England, but showery again at one or two of our western stations. Very unsettled over Scandinavia and the Baltic. Some rain or hail later in almost all parts of our Islands. Thunder, lightning and hail in many places, and also at Nice.

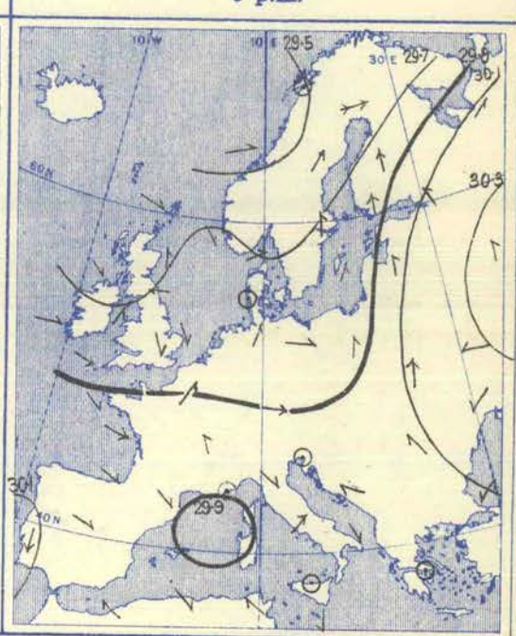
*Temperature* varying fitfully, but not so high as of late. Morning readings highest, 76° at Palma, 75° at Algiers, 70° at Malta; 60° to 53° in the west of France, 54° at Scilly, 52° at Valencia (Ireland), 49° to 52° over the south of Finland, 53° at Stockholm. Lowest, 41° at Parsonstown, 42° at Nairn and Shields, 39° at Loughborough. Rising later to between 53° and 56° in Scotland and Ireland, to between 61° and 60° over the south of England, to 61° at Paris, and 63° at Lorient and Nice. Succeeding night colder again.

### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



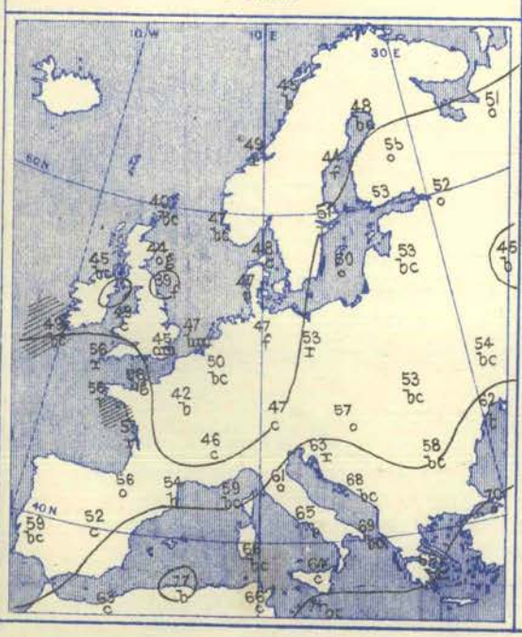
*Wind* (1) Light and variable in direction over eastern and southern Europe; (2) Southerly, fresh to strong, over Scandinavia and Denmark, but moderate Westerly to Northerly at our north-eastern, south-eastern and southern stations; (3) inclined to back Southwards again over the north of Ireland. Varying much in the later region later, but continuing moderate to light over our Islands, and lulling in Scandinavia.

*Barometer* highest, (1) 30·3 ins. and more to 30·1 ins. over the south-east of Russia; (2) 30·1 ins. and more to 30·0 ins. over the western parts of the Spanish Peninsula. Lowest, (1) 29·2 ins. and less in the depression near Skudesnaes; (2) 29·6 ins. and less off our extreme north-west coasts; (3) 29·7 ins. to 29·9 ins. in a "V"-shaped secondary stretching southwards over the western half of France. Rising fast in the north and east of Europe later, but rise slackening in the west of our Islands.

## Friday, 29th September.

### Temperature and Weather.

#### 8 a.m.

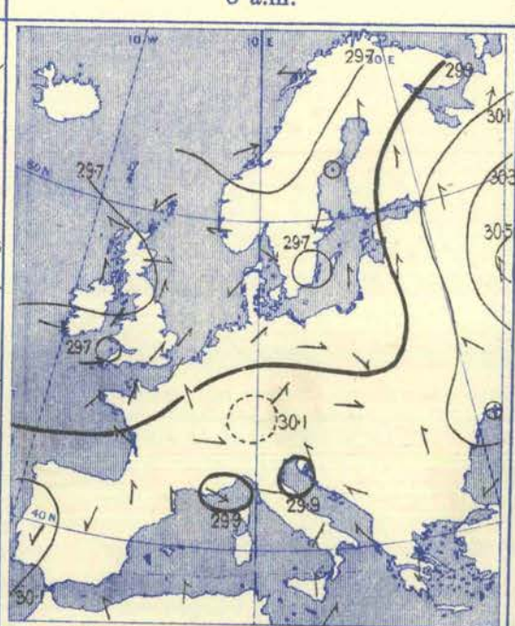


*Weather* in morning fine over Russia, fair over the Mediterranean and Spain, unsettled over northern Europe, fair, but not settled, over the British Islands. Much rain later in Brittany and the south and centre of the British Islands, in many parts of France, and at Yarmouth. Smaller quantities at our other stations and in Norway, but a considerable fall at Stockholm and Copenhagen; thunder and lightning in many parts of Scotland and Ireland.

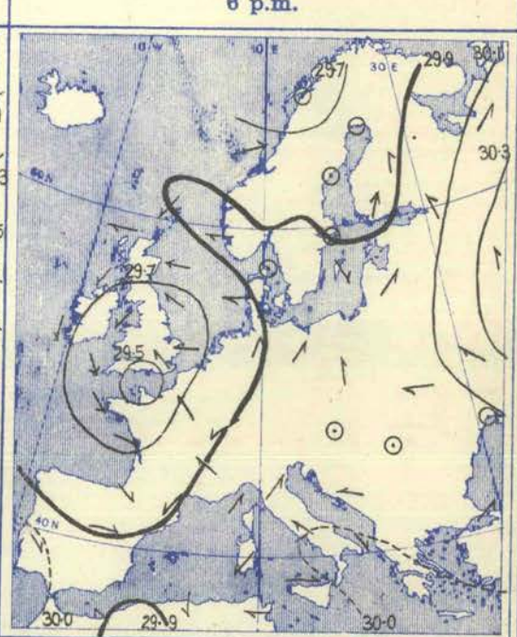
*Temperature* fallen in Ireland and France; risen over Russia and central Europe. Morning readings highest, (1) 77° at Algiers, and above 70° at Malta and Patras, 70° at Palma; 57° to 54° in the west of France, 56° to 53° at stations in the English Channel; (2) 56° at Kharkov, 55° at Kuopio, 53° at Hangö. Lowest, 39° at Shields and Donaghadee, 40° at Nairn, Parsonstown, and Loughborough. Rising later to 60° at Loughborough, but not so high at any other British or Irish station; touching 62° at Paris, 70° at Perpignan, Nice and Rome, 80° at Cagliari, 84° at Oran.

### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.

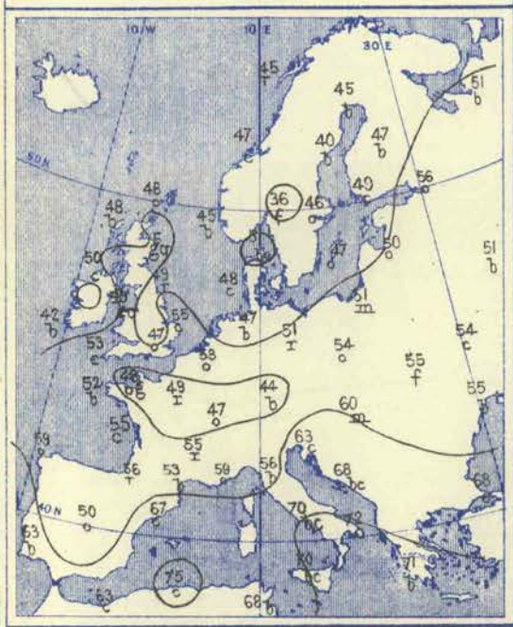


*Wind* (1) light and variable over all the southern and central countries of Continental Europe, strong from South over the Gulf of Finland, very variable over the United Kingdom. A well-defined cyclonic circulation over our southern counties later, and wind there freshening in force.

*Barometer* in morning highest, (1) 30·50 ins. at Moscow, and exceeding 30·0 ins. all over Russia; (2) 30·1 ins. and more to 30·0 ins. in a band extending from the south-west of Portugal to south Germany. Lowest, in several shallow depressions—one over the south of Sweden, another off the north-west of Norway, a third over the west of Scotland and north of Ireland, and the fourth (a small one) at the mouth of the Bristol Channel, the latter system moving south-eastwards later, the one in Sweden moving north-eastwards.

## Saturday, 30th September.

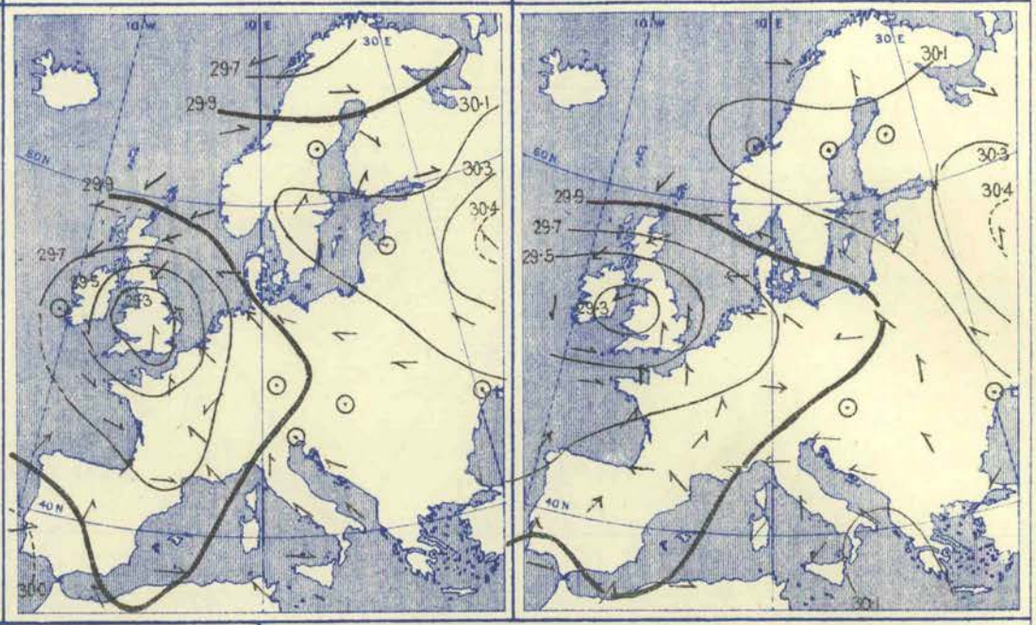
### Temperature and Weather. 8 a.m.



*Weather* in morning fine and quiet over Russia, foggy over Germany, fair over the Mediterranean; very rough and unsettled over the British Islands and their neighbourhood, dull and squally as a whole, and rainy in many places—most in the north of Great Britain and north-east of Ireland. Rain reported later all over western and north-western Europe, and a little in Germany, 0·98 ins. at Leith, 0·71 ins. at Cape Gris Nez, 0·66 ins. at Scilly; lightning seen over many parts of England, and a thunderstorm occurring at Dungeness.

*Temperature* risen over Russia and England, fallen in Ireland. Morning readings highest, (1) 75° at Algiers, 72° at Brindisi, 70° at Palermo; 59° at Marseilles and Leghorn, 55° to 51° in the west of France, and the shores of the English Channel; (2) 56° at St. Petersburg, 54° at Kharkov, 51° at Moscow. Lowest, (1) 40° at Hernösand, 45° at Haparanda and Bodö, 48° at Sumburgh Head; (2) 32° at Parsonstown, 42° at Valencia. Not touching 60° in any part of our Islands nor their neighbourhood during the day, but rising to 64° at Lyons, and 70° at Lisbon.

### Barometer and Wind. 8 a.m. 6 p.m.



*Wind* (1) completely cyclonic in our Islands, South-Easterly in the north-east of England, and blowing hard, North-Easterly, very strong in the east of Scotland and over the Irish Sea. North-Westerly, strong to fresh, on our south-west coasts, South-Westerly in the south-east. Freshening considerably in the Straits of Dover later, but moderating on our east coast. Blowing hard at Aberdeen, and over the north of Ireland.

*Barometer* highest, (1) 30·43 ins. at Moscow, and exceeding 30·1 ins. over Russia, and nearly the whole of the Baltic; (2) above 30·0 ins. in the south-west of Spain. Lowest, between 29·2 ins. and 29·3 ins. in a very complex depression immediately over England, and below 29·7 ins. in a "V"-shaped disturbance over the south-west of France. English depression moving slightly westwards later, and pressure rising over France.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟫⟶ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During all the earlier part of this week and, indeed, until Thursday pressure was highest, either over southern or south-western Europe, and depressions continued to reach our northern coasts from the Atlantic, while their secondaries passed over the more southern parts of the Kingdom. Throughout this time, however, the barometric readings were becoming lower and lower in value over western Europe as a whole, but were rising in the south of Russia.

On Friday the barometer had risen to 30·5 ins. at Moscow, and more than 30·0 ins. over Russia as a whole; it also stood at 30·15 ins. at Lisbon and exceeded 30·1 ins. over central France. There were shallow disturbances over the south of Sweden and the north-west of our Islands, but a third system of no great intensity had reached the mouth of the Bristol Channel. The movements of this disturbance during the next two days cannot yet be accurately determined, but it brought heavy continuous rains to many parts of the Kingdom, winds from nearly all points, strong to a gale in force, and very variable temperatures, while eastern Europe was experiencing fine quiet weather and temperatures in excess of the mean for the time of year.

At the close of the week there was still a disturbance immediately over our Islands, and the weather seemed likely to remain rough and unsettled.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 230.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 24·3 | ? | 30 | ? | BRIGHTON | 32·3 | - 2·2 | 39 | - 2 |
| STRATHPEFFER SPA | 14·1 | -12·4 | 17 | -15 | WORTHING | 34·3 | ? | 42 | ? |
| EDINBURGH | 18·0 | - 4·0 | 22 | - 6 | BOGNOR | 36·9* | ? | 45* | ? |
| MORPETH | 20·9 | ? | 25 | ? | EASTBOURNE | 34·4 | - 1·6 | 42 | - 1 |
| NEWCASTLE-ON-TYNE | 17·0 | ? | 21 | ? | VENTNOR HOSPITAL | 32·6 | ? | 40 | ? |
| OSWALDKIRK (Yorkshire) | 26·3 | + 0·3 | 32 | + 1 | SOUTHPORT | 24·9 | ? | 30 | ? |
| LOWESTOFT | 39·4 | ? | 48 | ? | COLWYN BAY | 25·4 | ? | 31 | ? |
| HOLLESLEY BAY | 39·5 | ? | 48 | ? | RHYL | 25·8* | ? | 31* | ? |
| SHEFFIELD | 22·0 | ? | 27 | ? | ABERDOVEY | 22·5* | ? | 27* | ? |
| WORKSOP | 30·8 | + 4·5 | 38 | + 7 | TENBY | 28·0 | - 5·0 | 34 | - 5 |
| THURCASTON (Leicestershire) | 27·3 | + 2·1 | 33 | + 3 | NEWQUAY | | | | |
| MARGATE | 30·8 | + 0·7 | 38 | + 2 | TORQUAY | 36·0 | + 2·0 | 44 | + 4 |
| WESTBOURNE (Emsworth) | 35·5* | + 1·5 | 43* | + 3 | GUERNSEY | 20·3* | -16·7 | 25* | -19 |
| WATERGATE (Emsworth) | 31·3 | ? | 38 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD. LITH. 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. No. 40.] *Third Series.* WEEK ENDING SATURDAY, OCTOBER 7TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely-proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 236.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH - | 58 | 31 | 52·5 | 41·4 | 46·8 | 2 below | 36 | −14 | 2 | − 1 | 2040 | +300 | 626 | − 4 |
| | 1. SCOTLAND, EAST - | 62 | 30 | 53·5 | 41·6 | 47·4 | 1 below | 39 | −16 | 1 | − 3 | 2250 | +141 | 678 | + 21 |
| | 2. ENGLAND, N.E. - | 61 | 32 | 55·3 | 41·7 | 48·3 | 2 below | 45 | −25 | 1 | 0 | 2554 | +282 | 457 | − 93 |
| | 3. ENGLAND, EAST - | 61 | 31 | 56·3 | 42·9 | 49·4 | 4 below | 52 | −25 | 0 | − 1 | 2970 | +348 | 421 | −197 |
| | 4. MIDLAND COUNTIES | 60 | 29 | 55·1 | 39·7 | 47·1 | 4 below | 45 | −28 | 6 | + 4 | 2958* | +345 | 484 | −138 |
| | 5. ENGLAND, SOUTH - | 64 | 35 | 58·3 | 46·6 | 52·3 | 1 below | 72 | −14 | 0 | − 1 | 3334 | +490 | 294 | −184 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST - | 60 | 25 | 54·4 | 41·0 | 47·5 | 2 below | 43 | −20 | 3 | + 1 | 2403 | +197 | 417 | − 47 |
| | 7. ENGLAND, N.W. - | 61 | 27 | 54·5 | 41·8 | 47·9 | 3 below | 42 | −30 | 1 | 0 | 2764 | +349 | 314 | −146 |
| | 8. ENGLAND, S.W. - | 63 | 29 | 56·8 | 44·0 | 50·2 | 2 below | 57 | −23 | 0 | − 1 | 3193 | +536 | 240 | −122 |
| | 9. IRELAND, NORTH - | 61 | 31 | 55·0 | 42·7 | 48·6 | 1 below | 46 | −17 | 0 | − 1 | 2602* | +278 | 325 | − 71 |
| | 10. IRELAND, SOUTH - | 62 | 27 | 55·8 | 40·2 | 47·8 | 4 below | 48 | −22 | 5 | + 4 | 3031 | +405 | 250 | − 51 |
| | —CHANNEL ISLANDS- | 67 | 46 | 61·3 | 50·9 | 55·9 | 0 (average) | 97 | − 3 | 0 | 0 | 3754 | +761 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 236.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH - | 6 | 11 | 1 more | 172 | −10 | 36·0* | + 0·8 | 17 | − 4 | 22 | − 4 | 1115 | +148 | 29 | + 4 |
| | 1. SCOTLAND, EAST - | 4 | 6 | 1 less | 156 | + 7 | 25·1 | + 1·5 | 23 | + 1 | 30 | + 2 | 1199 | + 71 | 32 | + 2 |
| | 2. ENGLAND, N.E. - - | 4 | 13 | 7 more | 137 | − 1 | 19·2 | − 0·1 | 29 | + 6 | 37 | + 9 | 1194 | + 97 | 33 | + 3 |
| | 3. ENGLAND, EAST - | 4 | 8 | 2 more | 124 | −12 | 16·7 | − 2·5 | 17 | −12 | 21 | −15 | 1634 | +244 | 43 | + 6 |
| | 4. MIDLAND COUNTIES | 3 | 10 | 4 more | 122 | −10 | 19·8 | − 1·1 | 20 | − 5 | 25 | − 5 | 1450 | +289 | 41 | + 8 |
| | 5. ENGLAND, SOUTH - | 4 | 8 | 0 (average) | 107 | −21 | 17·4 | − 3·5 | 22 | − 9 | 28 | −12 | 1749 | +325 | 47 | + 8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST - | 5 | 12 | 0 (average) | 167 | +11 | 36·7 | + 0·5 | 28 | + 4 | 36 | + 4 | 1231 | + 35 | 33 | + 1 |
| | 7. ENGLAND, N.W. - | 3 | 9 | 0 (average) | 149 | + 6 | 27·4 | + 2·2 | 31 | + 8 | 39 | +10 | 1421 | +224 | 39 | + 7 |
| | 8. ENGLAND, S.W. - - | 3 | 11 | 1 more | 133 | −11 | 28·3 | − 0·2 | 28 | − 2 | 36 | − 1 | 1704 | +253 | 47 | + 7 |
| | 9. IRELAND, NORTH - | 4 | 3 | 5 less | 174 | + 5 | 27·6 | + 0·1 | 33 | +10 | 42 | +13 | 1246 | +150 | 34 | + 4 |
| | 10. IRELAND, SOUTH - | 2 | 3 | 5 less | 143 | − 9 | 30·0 | + 1·4 | 42 | +15 | 54 | +20 | 1415 | +169 | 39 | + 5 |
| | — CHANNEL ISLANDS- | 3 | 4 | 5 less | 126 | −25 | 20·1 | − 3·0 | 33 | + 1 | 42 | + 1 | 1872 | +264 | 54 | + 8 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was again very unsettled and rainy during the earlier part of the period, but towards its close the conditions improved generally, and in many districts became fine and bright. Thunderstorms were experienced at several of the south-eastern stations on Sunday; at Rothamsted the accompanying rainfall was unusually large.

*Temperature* was just equal to the mean in the Channel Islands, but was again below it in all other districts. The highest of the maxima were recorded on the 3rd, and ranged from 67° in the Channel Inlands, and 64° in England S., to 58° in Scotland N. The lowest of the minima, which were registered towards the close of the week, ranged from 25° in Scotland W., 27° in England N.W. and Ireland S., and 29° in England S.W. and the Midland Counties, to 35° in England S., and to 46° in the Channel Islands.

*Rainfall* was less than the mean in Scotland E., the Channel Islands and over Ireland, and just equal to it in England S., Scotland W., and England N.W. ; in the other districts there was again an excess, that in England N.E. and the Midland Counties being large.

*Bright Sunshine* considerably exceeded the mean value in Ireland and the northern parts of England, and slightly in Scotland E. and W. and the Channel Islands. Over southern, central and eastern England, however, there was a decided deficit. The percentage of the possible duration ranged from 54 in Ireland S., 42 in Ireland N. and the Channel Islands, and 39 in England N.W., to 25 in the Midland Counties, 22 in Scotland N., and 21 in England E.

*Barometer and Wind.*—During the early part of the period a well-defined and rather deep depression moved north-eastwards over England, causing strong winds or gales from various directions on many parts of our coasts. This system had disappeared over Norway on Tuesday, and an anticyclonic band stretched from west to east over the south of England and France to Germany. During Wednesday some shallow depressions moved eastwards over the southern parts of the Kingdom, causing the wind to vary between South-East and South-West, but by Thursday an anticyclone had commenced to spread over us from the westward, and during the remainder of the week it continued to increase both in size and intensity.

* This value has been altered owing to the receipt of further information for a preceding week.

207 | 90 Wy. & S., Ltd.
913 | 70 10 | 99.

# II.—DATA from which the SUMMARY on page 235 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Rainfall. Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 53 | 35 | 50·1 | 40·9 | 45·4 | − 2·3 | 28 | 3 | 6 | 0·91 | + 0·04 | * | * | * | * |
| | Stornoway | 57 | 33 | 53·0 | 40·1 | 46·4 | − 1·3 | 39 | 5 | 5 | 1·15 | + 0·08 | 23·8 | + 2·2 | 31 | + 4 |
| | Wick | 58 | 32 | 52·7 | 41·4 | 46·9 | − 1·3 | 37 | 2 | 6 | 0·92 | + 0·32 | * | * | * | * |
| | Lairg Ⓢ | 58 | 33 | 55·6 | 39·7 | 47·4 | + 0·8 | 47 | 6 | 6 | 1·30 | + 0·42 | * | * | * | * |
| | Glencarron Ⓢ | | | | | | | | | | | | * | * | * | * |
| | Fort Augustus Ⓢ | 58 | 31 | 53·6 | 42·1 | 47·7 | − 0·6 | 40 | 0 | 6 | 1·08 | + 0·10 | 11·3 | − 4·5 | 14 | − 6 |
| | Fort William Ⓢ | 56 | 35 | 52·9 | 42·7 | 47·6 | − 2·2 | 29 | 0 | 5 | 1·58 | − 0·19 | 13·9 | − 6·8 | 18 | − 7 |
| 1. SCOTLAND E. | Nairn | 56 | 36 | 53·1 | 41·4 | 47·1 | − 1·7 | 38 | 2 | 4 | 0·49 | − 0·15 | * | * | * | * |
| | Aberdeen | 62 | 34 | 53·7 | 42·6 | 48·0 | − 1·4 | 42 | 0 | 5 | 0·17 | − 0·56 | 24·9 | + 0·9 | 32 | + 1 |
| | Braemar Ⓢ | 53 | 30 | 49·5 | 38·2 | 43·7 | − 2·1 | 28 | 11 | 5 | 0·55 | − 0·22 | 29·0† | − 2·0† | 26† | − 1† |
| | Ochtertyre Ⓢ | 60 | 35 | 56·9 | 40·0 | 48·2 | − 0·6 | 52 | 6 | 3 | 0·89 | − 0·01 | * | * | * | * |
| | Leith | 61 | 38 | 56·7 | 43·4 | 49·9 | − 0·9 | 55 | 0 | 3 | 0·41 | − 0·11 | * | * | * | * |
| | Marchmont Ⓢ | 57 | 40 | 50·9 | 44·7 | 47·5 | − 0·8 | 39 | 0 | 2 | 1·02 | + 0·22 | 24·0 | + 2·0 | 31 | + 3 |
| 2. ENGLAND, N.E. | Alnwick Castle | 59 | 32 | 54·7 | 41·0 | 47·7 | − 1·6 | 44 | 3 | 5 | 1·70 | + 0·96 | * | * | * | * |
| | Durham | 60 | 32 | 55·7 | 38·3 | 46·7 | − 3·1 | 48 | 10 | 3 | 1·30 | + 0·63 | 31·9 | + 8·3 | 41 | +12 |
| | Shields | 61 | 35 | 55·0 | 42·1 | 48·4 | − 2·0 | 45 | 0 | 5 | 1·32 | + 0·74 | * | * | * | * |
| | Scarborough Ⓜ | 61 | 36 | 55·9 | 40·3 | 47·9 | − 3·2 | 48 | 5 | 5 | 1·34 | + 0·64 | | | | |
| | Spurn Head | 56 | 44 | 55·3 | 46·9 | 51·0 | − 1·7 | 63 | 0 | 2 | 1·01 | + 0·49 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 59 | 32 | 57·0 | 41.0 | 48·8 | − 2·8 | 52 | 3 | 4 | 0·61 | − 0·04 | 18·9 | − 7·7 | 24 | − 9 |
| | Yarmouth | 58 | 40 | 55·9 | 45·3 | 50·4 | − 2·3 | 59 | 0 | 5 | 0·56 | − 0·16 | * | * | * | * |
| | Geldeston | 60 | 35 | 57·8 | 42·1 | 49·7 | − 2·6 | 54 | 0 | 5 | 0·48 | − 0·16 | 17·4 | −13·6 | 22 | −17 |
| | Cambridge | 61 | 31 | 57·5 | 39·9 | 48·4 | − 3·4 | 54 | 6 | 3 | 0·37 | − 0·18 | 12·8 | −15·5 | 16 | −20 |
| | Felixstowe | 61 | 39 | 55·1 | 47·0 | 50·9 | − 6·8 | 48 | 0 | 5 | 0·85 | ? | 15·8 | ? | 20 | ? |
| | Rothamsted | 60 | 35 | 54·6 | 41·8 | 48·0 | − 3·0 | 43 | 1 | 4 | 1·90 | + 1·20 | 17·3 | −10·7 | 22 | −13 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 60 | 29 | 55·4 | 37·4 | 46·1 | − 4·6 | 48 | 13 | 2 | 1·40 | + 0·77 | * | * | * | * |
| | Loughborough | 60 | 32 | 56·0 | 39·1 | 47·3 | − 4·3 | 49 | 8 | 3 | 0·86 | + 0·23 | * | * | * | * |
| | Stamford (Ketton) | 58 | 30 | 55·3 | 39·1 | 47·0 | − 4·8 | 47 | 8 | 4 | 0·99 | + 0·27 | * | * | * | * |
| | Cheadle Ⓜ | 56 | 37 | 53·3 | 41·0 | 47·0 | − 2·8 | 39 | 3 | 3 | 1·00 | + 0·30 | * | * | * | * |
| | Shirley (near Solihull) | 57 | 30 | 53·9 | 39·2 | 46·3 | − 4·3 | 42 | 8 | 4 | 0·99 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 58 | 31 | 54·9 | 38·1 | 46·3 | − 3·2 | 46 | 11 | 2 | 1·10 | + 0·36 | 26·6 | + 1·8 | 34 | + 3 |
| | Hereford (Belmont) Ⓜ | 59 | 30 | 55·5 | 39·9 | 47·5 | − 3·3 | 47 | 6 | 3 | 1·46 | + 0·78 | * | * | * | * |
| | Cirencester | 59 | 35 | 56·3 | 40·6 | 48·2 | − 1·8 | 49 | 4 | 3 | 0·87 | + 0·13 | 22·0 | − 2·9 | 28 | − 4 |
| | Oxford | 60 | 34 | 55·0 | 42·6 | 48·6 | − 3·2 | 46 | 0 | 3 | 0·65 | − 0·03 | 16·4 | −10·7 | 21 | −14 |
| 5. ENGLAND, S. | London | 64 | 35 | 57·3 | 44·3 | 50·6 | − 1·9 | 60 | 0 | 4 | 0·43 | − 0·18 | 11·3† | −10·5† | 14† | −15† |
| | Cranley Ⓜ | 62 | 37 | 59·3 | 44·5 | 51·7 | − 0·9 | 68 | 0 | 2 | 0·62 | ? | * | * | * | * |
| | Dungeness | 63 | 42 | 58·7 | 49·6 | 54·0 | 0·0 | 84 | 0 | 5 | 0·92 | + 0·15 | * | * | * | * |
| | Hastings (St. Leonards) | 61 | 42 | 58·3 | 47·3 | 52·6 | − 1·3 | 74 | 0 | 4 | 1·73 | + 0·90 | 24·3 | − 8·7 | 31 | −10 |
| | Southampton | 63 | 41 | 59·0 | 45·7 | 52·2 | − 1·4 | 71 | 0 | 3 | 0·61 | − 0·18 | 22·6 | − 6·4 | 29 | − 9 |
| | Portland Bill | 63 | 45 | 59·2 | 49·1 | 54·1 | + 0·2 | 85 | 0 | 3 | 0·69 | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 59 | 39 | 56·0 | 45·5 | 50·6 | − 0·2 | 60 | 0 | 4 | 0·63 | − 0·27 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 57 | 32 | 53·4 | 41·9 | 47·5 | − 2·0 | 39 | 0 | 7 | 1·76 | − 0·04 | * | * | * | * |
| | Glasgow | 55 | 37 | 52·7 | 43·4 | 47·9 | − 0·7 | 41 | 0 | 5 | 0·62 | − 0·23 | 23·1 | + 4·5 | 30 | + 5 |
| | Glenlee Ⓢ | 58 | 25 | 55·4 | 38·4 | 46·7 | − 2·6 | 48 | 10 | 4 | 0·86 | − 0·40 | * | * | * | * |
| | Douglas (Isle of Man) | 60 | 32 | 56·1 | 40·2 | 47·9 | − 2·8 | 49 | 5 | 3 | 1·61 | + 0·76 | 33·2 | + 3·4 | 42 | + 4 |
| 7. ENGLAND, N.W. | Newton Reigny | 57 | 27 | 55·1 | 37·4 | 46·0 | − 3·3 | 47 | 13 | 4 | 1·15 | ? | 33·9 | ? | 43 | ? |
| | Stonyhurst | 58 | 33 | 53·2 | 40·1 | 46·5 | − 3·6 | 39 | 5 | 3 | 0·53 | − 0·62 | 31·1 | + 5·6 | 39 | + 7 |
| | Blackpool Ⓜ | 59 | 31 | 55·3 | 40·1 | 47·5 | − 3·9 | 46 | 5 | 3 | 1·04 | + 0·08 | 38·0 | + 13·3 | 48 | + 17 |
| | Manchester (Prestwich) | 60 | 30 | 54·6 | 40·1 | 47·1 | − 3·3 | 44 | 5 | 3 | 0·48 | − 0·50 | 18·4 | ? | 23 | ? |
| | Liverpool Obsy. (Bidston) | 61 | 43 | 53·9 | 45·0 | 49·3 | − 2·6 | 51 | 0 | 3 | 0·79 | − 0·06 | 25 3 | ? | 32 | ? |
| | Llandudno Ⓜ | 60 | 39 | 55·2 | 44·4 | 49·6 | − 3·3 | 53 | 0 | 3 | 1·19 | + 0·34 | 28·2 | + 5·6 | 36 | + 7 |
| | Holyhead | 59 | 41 | 53·9 | 45·3 | 49·5 | − 3·7 | 53 | 0 | 4 | 1·32 | + 0·45 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 63 | 29 | 57·3 | 37·9 | 47·3 | − 2·6 | 54 | 11 | 5 | 1·55 | + 0·35 | * | * | * | * |
| | Pembroke | 58 | 42 | 54·6 | 45·7 | 50·0 | − 3·4 | 56 | 0 | 3 | 0·95 | + 0·05 | 31.7 | + 3·2 | 40 | + 4 |
| | Clifton | 60 | 38 | 56·0 | 43·8 | 49·7 | − 2·1 | 54 | 0 | 3 | 1·40 | + 0·54 | * | * | * | * |
| | Arlington (N. Devon) | 59 | 37 | 56·1 | 42·7 | 49·2 | − 2·4 | 50 | 0 | 3 | 2·07 | + 0·85 | * | * | * | * |
| | Cullompton Ⓜ | 62 | 35 | 58·9 | 42·3 | 50·4 | − 2·3 | 59 | 0 | 2 | 0·61 | − 0·29 | 21·9 | − 4·3 | 28 | − 5 |
| | Falmouth | 62 | 43 | 57·2 | 48·0 | 52·5 | − 1·5 | 74 | 0 | 3 | 0·88 | − 0·30 | 32·9 | + 2·1 | 42 | + 4 |
| | Plymouth | 61 | 41 | 57·3 | 47·9 | 52·5 | − 1·4 | 74 | 0 | 3 | 0·49 | − 0·43 | 24·6 | − 4·3 | 31 | − 6 |
| 9. IRELAND, N. | Malin Head | 57 | 44 | 53·4 | 48·0 | 50·6 | − 0·3 | 60 | 0 | 7 | 0·45 | ? | * | * | * | * |
| | Londonderry | 59 | 37 | 55·8 | 41·7 | 48·5 | − 2·0 | 47 | 1 | 4 | 0·31 | − 0·63 | * | * | * | * |
| | Edenfel (Omagh) | 57 | 33 | 53·7 | 38·7 | 46·0 | − 2·1 | 42 | 9 | 3 | 0·16 | − 0·69 | * | * | * | * |
| | Belmullet | | | | | | | | | | | | * | * | * | * |
| | Markree Castle | 61 | 31 | 56·5 | 41·0 | 48·5 | − 1·1 | 50 | 3 | 2 | 0·27 | − 0·68 | 33·1 | +11·3 | 42 | +15 |
| | Armagh | ? | 32 | ? | 40·3 | ? | ? | ? | ? | 3 | 0·26 | − 0·39 | 32·5 | + 7·5 | 41 | +10 |
| | Donaghadee | 60 | 34 | 55·6 | 43·9 | 49·6 | − 1·3 | 53 | 0 | 4 | 0·46 | − 0·19 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 62 | 33 | 54·1 | 40·8 | 47·3 | − 4·4 | 42 | 3 | 2 | 0·39 | − 0·19 | 39·2 | +10·2 | 50 | +13 |
| | Parsonstown | 59 | 27 | 55·3 | 34·7 | 44·7 | − 4·9 | 50 | 20 | 2 | 0·17 | − 0·58 | 39·9 | +13·5 | 51 | +19 |
| | Kilkenny | 60 | 27 | 55·7 | 37·3 | 46·2 | − 5·2 | 49 | 13 | 3 | 0·11 | − 0·49 | * | * | * | * |
| | Roche's Point | 59 | 37 | 57·0 | 43·7 | 50·2 | − 2·6 | 57 | 0 | 2 | 0·17 | − 0·67 | * | * | * | * |
| | Valencia | 59 | 32 | 56·9 | 42·3 | 49·4 | − 4·0 | 52 | 0 | 3 | 0·67 | − 0·35 | 47·6 | +20·7 | 60 | +26 |
| | Killarney | | | | | | | | | | | | * | * | * | * |
| | Foynes | 59 | 32 | 55·6 | 42·1 | 48·7 | − 1·4 | 47 | 0 | 2 | 0·18 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 62 | 47 | 59·9 | 51·1 | 55·4 | 0·0 | 94 | 0 | 3 | 0·67 | − 0·23 | 30·0 | ? | 38 | ? |
| | Jersey | 67 | 46 | 62·6 | 50·6 | 56·4 | − 0·2 | 101 | 0 | 3 | 0·13 | − 0·83 | 43·0 | + 8·5 | 54 | + 9 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

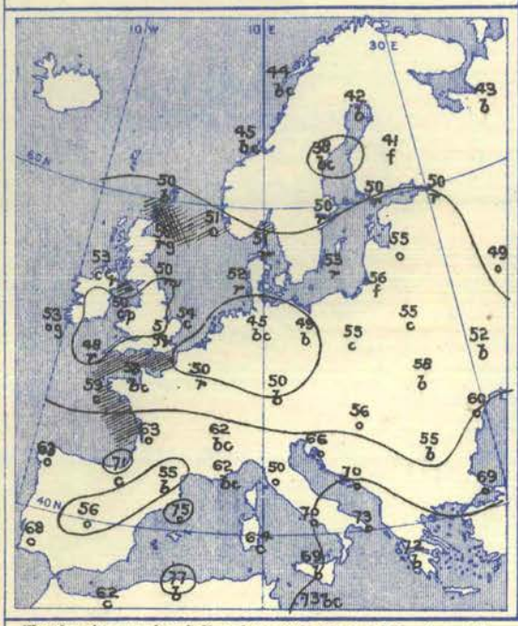
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observation made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake

## Sunday, 1st October.

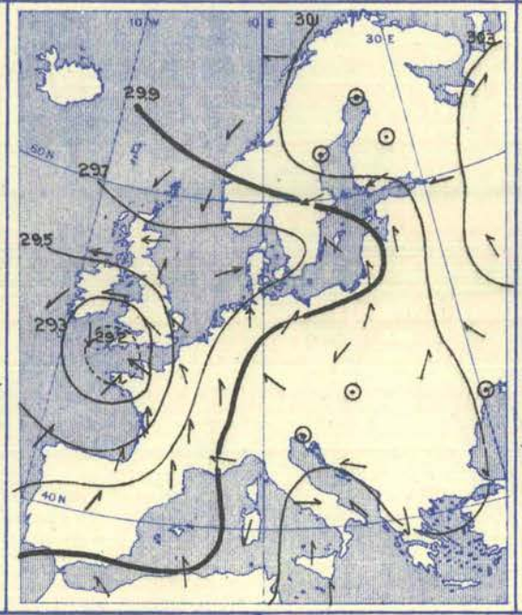
### Temperature and Weather.

8 a.m.

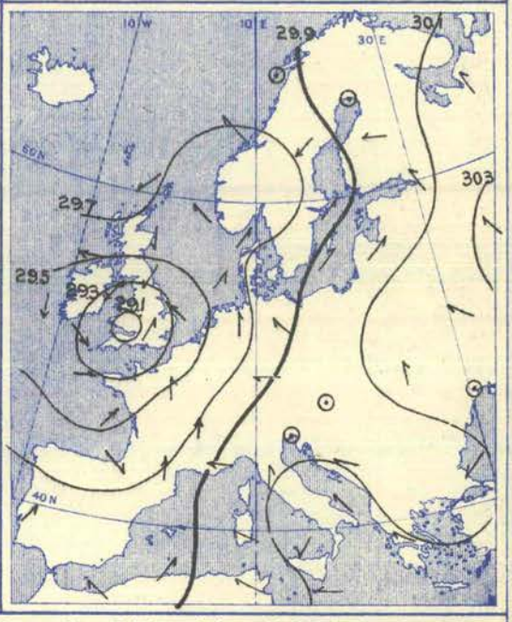


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning dull and unsettled in our Islands and the north and west of France, with rain in several places and a thunderstorm at Le Mans; rain falling also over Denmark, the Gulf of Finland, and the south of Scandinavia. Fine in the north of Scandinavia as well as in Germany and the south of France; cloudy or dull over Austria, Italy, and the Spanish Peninsula. Rain falling later over nearly the whole of western and northern Europe—heavily in many places; thunder and lightning occurring in some parts of central and southern England.

*Temperature* risen in most countries, but fallen over Russia and the northern parts of Scandinavia. Morning readings highest, 77° at Alicante and Algiers, 75° at Barcelona, and 73° at Brindisi and Malta; above 65° at most of the Mediterranean, Adriatic, and Spanish coast stations. Lowest, 38° at Hernösand, 41° at Kuopio, 42° at Haparanda, and 43° at Archangel. Daily maxima below 60° on all but our extreme southern coasts, and below 55° at many of our northern and central stations; thermometer exceeding 70° in most parts of southern Europe, and reaching 82° at Perpignan and Brindisi, and 84° at Palermo.

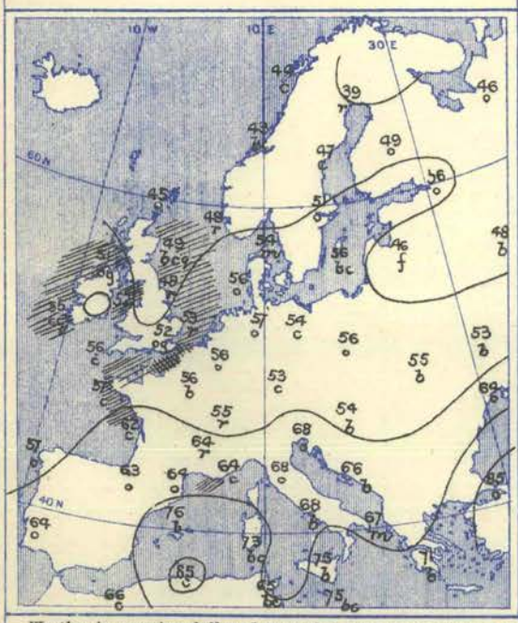
*Wind* Easterly or South-Easterly over Great Britain and the north of Ireland, and strong in force in many places; light from the Northward in the south of Ireland, light to fresh from the southward over France, Germany, the Netherlands and the Spanish Peninsula. Easterly or North-Easterly over Scandinavia and northern Russia, calm or variable over Italy, Austria, and the south of Russia; Easterly over the Adriatic. Subsequently shifting to the North-Eastward over the northern parts of our Islands; veering to the South-Westward over the English Channel, and increasing to a gale.

*Barometer* highest, 30·3 ins. and upwards in an anticyclone lying over northern and central Russia. Lowest, 29·2 ins. and less in a well-marked depression with its centre lying near the mouth of the English Channel; 29·5 ins. and less in a small secondary disturbance over the west of Denmark. Both depressions moving north-eastwards later; barometer rising on our own south-west coasts.

## Monday, 2nd October.

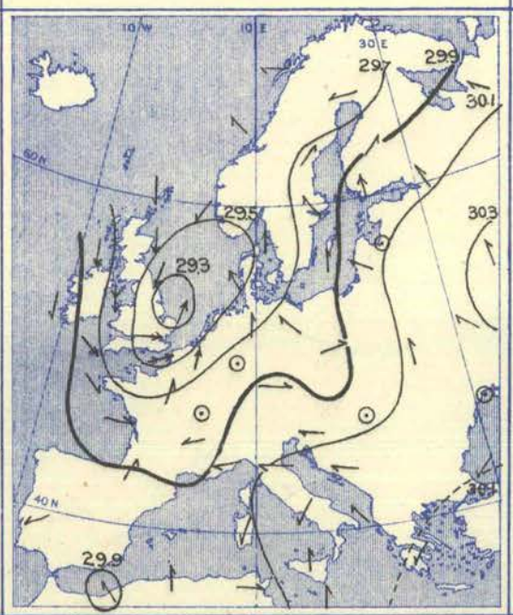
### Temperature and Weather.

8 a.m.

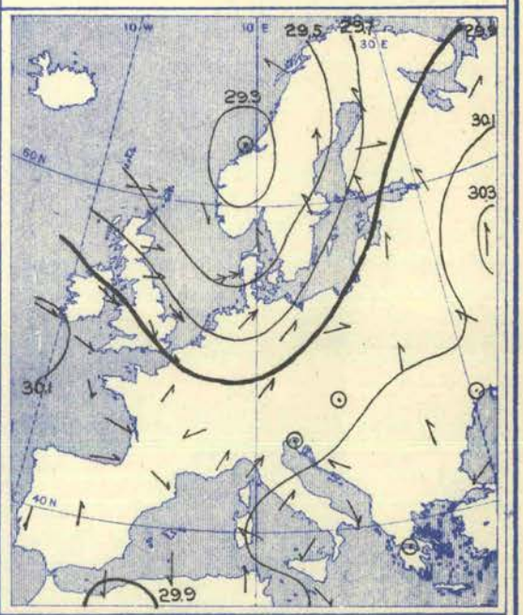


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning dull and unsettled over north-western Europe as a whole, with rain in many parts of England, as well as in Denmark and the south of Scandinavia. Fine in Ireland and also over Italy, Austria and the central and southern parts of Russia; dull over the Spanish Peninsula and the southern parts of France, with rain at Lyons. Slight rain falling later in many parts of the United Kingdom, France and Germany, and larger quantities in Scandinavia and Denmark.

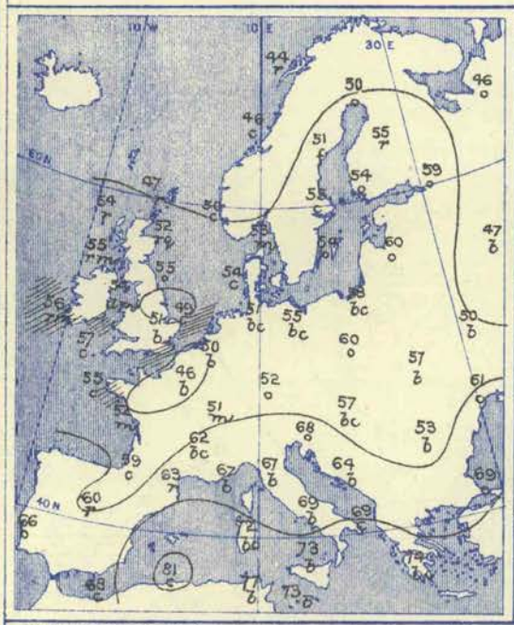
*Temperature* risen in the central and southern parts of the United Kingdom, as well as in Germany, Denmark, Russia, and the south of Scandinavia; fallen elsewhere. Morning readings highest, 85° at Algiers, 76° at Barcelona, 75° at Palermo and Malta; above 65° in many parts of southern Europe. Lowest, 39° at Haparanda, 41° at Christiansund, 44° at Bodö, and 45° at Sumburgh Head. Daily maxima below 55° in many parts of Great Britain, but thermometer exceeding 60° at some of the English Channel stations, and exceeding 65° in France and Germany; exceeding 70° in many parts of southern Europe, and reaching 84° at Cagliari and 86° at Palermo.

*Wind* moderate to strong from the Northward on all our more western and northern coasts, with a gale at Holyhead. Strong to a gale from the West or South-West over the English Channel; Southerly or South-Easterly over north Germany, Denmark, the Baltic and Sweden; Easterly in Norway. Light and variable over southern Europe generally; calm or Easterly in the south of Russia. Subsequently backing to the Westward on many parts of our own western and northern coasts; veering to the South-Westward in Denmark and north Germany.

*Barometer* highest, 30·3 ins. and upwards over central Russia; 30·1 ins. and upwards in an anticyclone covering nearly the whole of Russia, Austria and Italy. Lowest, 29·3 ins. and less in a well-marked depression with its centre near the mouth of the Humber. Depression subsequently moving quickly north-eastwards across the North Sea, and barometer rising considerably over England and the neighbouring parts of the Continent.

## Tuesday, 3rd October.

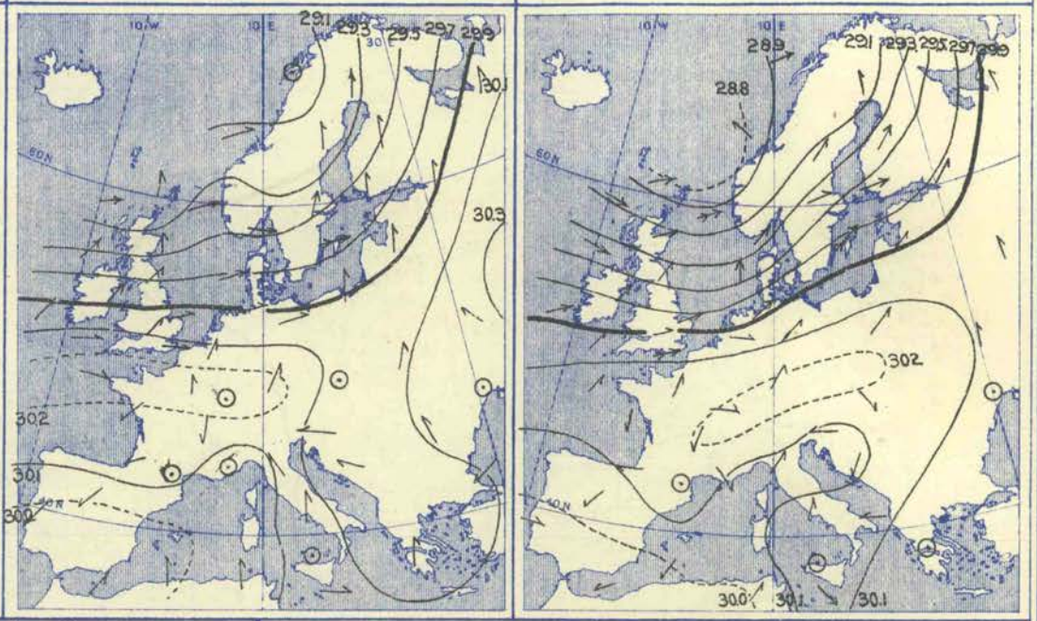
### Temperature and Weather. — 8 a.m.



*Weather* in morning fair or fine in the south and east of England, as well as over the western, central and southern parts of the Continent generally, but cloudy or dull over the Spanish Peninsula, with rain at Madrid. Cloudy or dull in all the more western and northern parts of our Islands, with rain in several places; dull also in the northern parts of Russia and Scandinavia, with rain at Kuopio, Helsingfors and Bodö. Rain falling later over north-western and northern Europe generally—rather heavily at some of the Scandinavian stations.

*Temperature* risen in most countries, but fallen in France, and also over central and southern Russia. Morning readings highest, 81° at Algiers, 77° at La Calle, 75° at Oran, and 74° at Athens; above 65° in most parts of southern Europe. Lowest, 44° at Bodö, and 46° at Archangel, Uleaborg and Christiansund. Rising during day to 50° or slightly above it in many parts of the United Kingdom, and to 64° in London; exceeding 70° over southern Europe generally, and reaching 81° at Madrid and 84° at Palermo.

### Barometer and Wind.

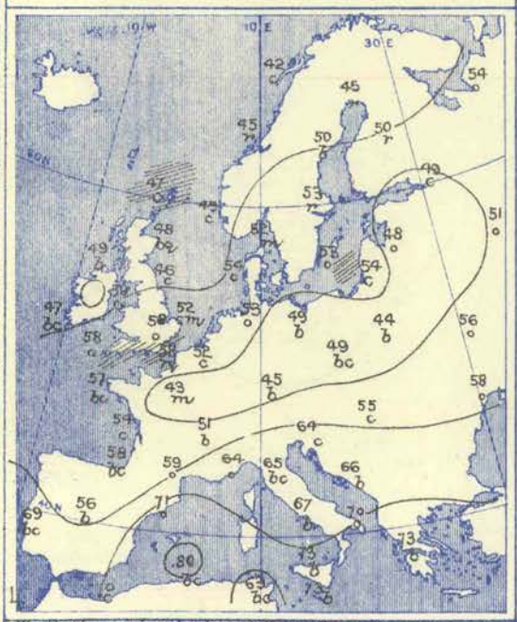


*Wind* fresh to strong from the South-Westward over north-western Europe generally, but Southerly in the north-east of Scotland; Southerly also over the northern parts of Russia and Sweden. Light from the North-Eastward over the Spanish Peninsula and the south-west of France; variable over Italy, Austria and the south of Russia. Increasing later to a moderate to fresh gale from South-West or West on many parts of our own coasts, and blowing still harder in Denmark and the south of Scandinavia.

*Barometer* highest, 30·3 ins. and upwards over central Russia; 30·2 ins. and upwards over south Germany and the northern parts of France; 30·1 ins. and upwards in an anticyclone embracing a considerable portion of central, southern and eastern Europe. Lowest, 29·1 ins. and less in a depression over the northern parts of Norway; 29·2 ins. and less in another disturbance lying off the north of Scotland. Both depressions moving north-eastwards later, but barometer continuing to fall in most parts of western Europe.

## Wednesday, 4th October.

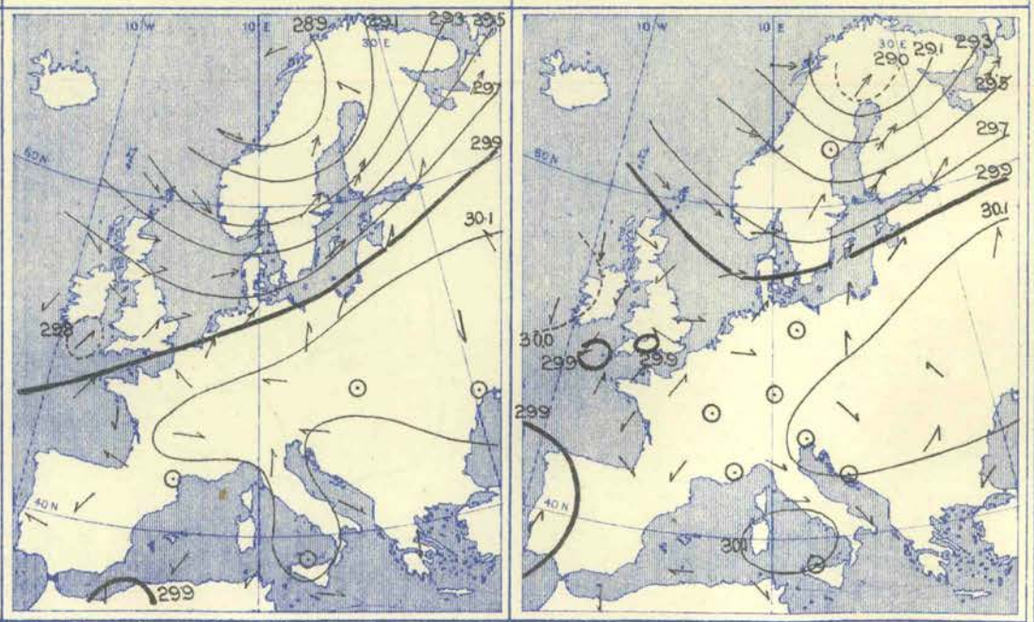
### Temperature and Weather. — 8 a.m.



*Weather* in morning cloudy or dull over England and the northern parts of the Continent, with rain at several of our own southern stations, as well as at the Helder and in Lapland and Finland. Fine in most of the central and southern countries, but dull in the south of France; fog reported in some parts of Germany and Austria. A little rain falling later in most parts of the United Kingdom, and larger quantities in the north of Scandinavia. Thunderstorms occurring at Bordeaux and Biarritz, and also at Aumale.

*Temperature* risen in the extreme south of England and adjacent parts of the Continent, but fallen elsewhere. Morning readings highest, 80° at Algiers and 76° at La Calle, above 70° at several of the Mediterranean stations. Lowest, (1) 39° at Parsonstown; (2) 40° at Le Mans and 42° at Belfort and Cracow; (3) 42° at Bodö. Daily maxima below 60° on all but our southern coasts, and below 55° at several of our own northern and central stations; thermometer exceeding 70° over southern Europe generally, and reaching 86° at Sanguinaire and Cagliari, and 88° at Palermo.

### Barometer and Wind.

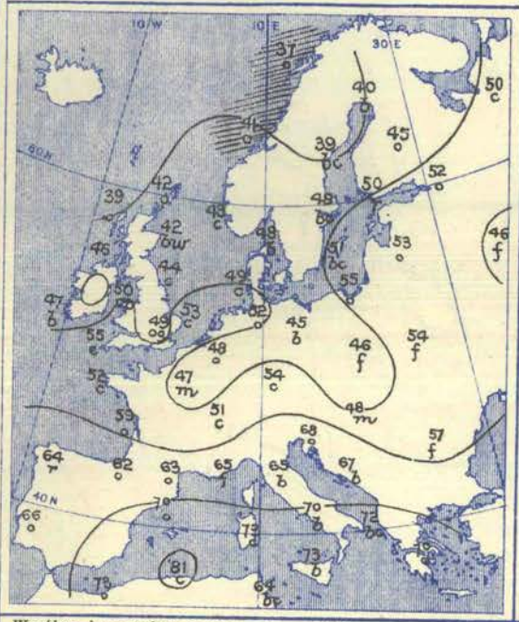


*Wind* Westerly over Great Britain as a whole, and strong in force in the eastern parts of the Channel; strong to a gale from the South-West over Denmark, the Baltic, and the southern parts of Scandinavia; light from the Eastward in the north of Scandinavia; Northerly or North-Westerly in Ireland and the extreme north of Scotland. Light from the Eastward over the Spanish Peninsula and the south of France, variable in Italy; calm in Austria and the south of Russia. Subsequently shifting to the Northward in the western and northern parts of Great Britain. Gales over northern Europe subsiding gradually.

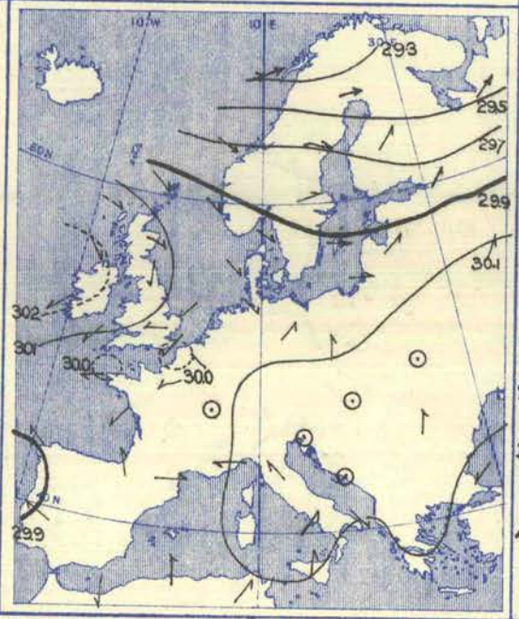
*Barometer* highest, 30·0 ins. to 30·1 ins. and upwards in an anticyclone covering nearly the whole of eastern, central, and southern Europe. Lowest, 28·9 ins. and less in a large depression with its centre over the northern parts of Scandinavia (gradients steep over northern Europe generally); 29·8 ins. and less in a small secondary system near the mouth of the Bristol Channel. Depression subsequently travelling away to the north-eastward; secondary system moving southwards and partially filling up; new anticyclone beginning to spread over our Islands from the westward.

## Thursday, 5th October.

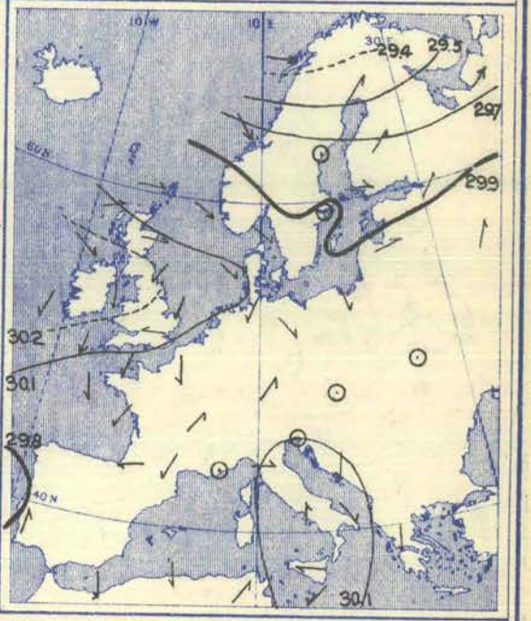
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy and unsettled over the south-east of England, and the greater part of France and Spain, with rain at Oxford and Dungeness, and also at Corunna. Fair or fine in most other parts of Europe, but dull in the north of Scotland, and also over the Baltic and northern Russia; fog reported in many parts of Austria. Slight rain falling later in the south-east, east, and north of our Islands, and larger quantities at some of the Continental stations; lightning seen at Lyons at night.

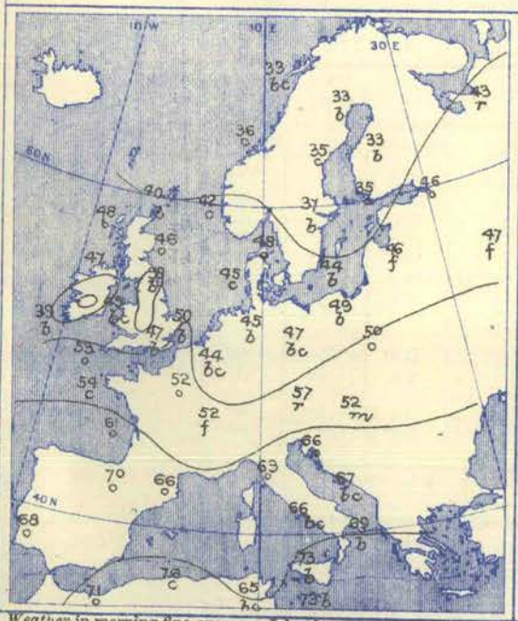
*Temperature* fallen in all but the southern countries. Morning readings highest, 81° at Algiers, 76° at La Calle, and 73° at Cagliari, Palermo and Sfax; above 65° over southern Europe generally. Lowest (1) 31° at Parsonstown, and 39° at Stornoway; (2) 37° at Bodö, and 39° at Hernösand; (3) 43° at Wiesbaden, and 44° at Prague. Daily maxima below 50° in the north of Scotland, and below 55° in most other parts of our Islands; thermometer exceeding 70° over southern Europe generally, and reaching 86° at Palermo and 88° at Sanguinaire. Frost occurring over the central parts of England and Ireland at night.

*Wind* light to moderate from the North-Westward on our own northern coasts, and also on the eastern shores of the North Sea. Strong from the Westward or South-Westward over Scandinavia and northern Russia, with a gale in the west of Norway. Light to moderate from the North-Eastward over the greater part of England, Ireland and France; South-Easterly over northern Italy and the Spanish Peninsula. Calm over Austria and the Adriatic, variable over southern Italy. Subsequently backing to the Westward in the north of Scotland.

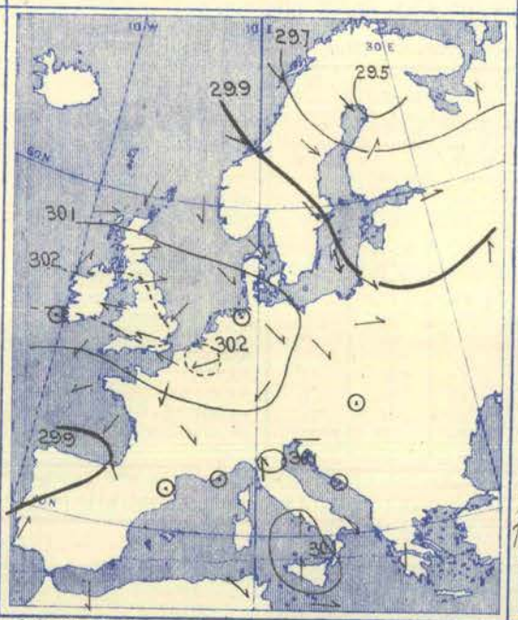
*Barometer* highest, 30·2 ins. and upwards over Ireland; 30·1 ins. and upwards in an anticyclone lying over the greater part of our Islands, and also in another system covering the greater part of southern and eastern Europe. Lowest, 29·3 ins. and less in a depression over the north of Scandinavia; 29·9 ins. and less in a shallow disturbance off the Portuguese coasts No important change occurring over western Europe later.

## Friday, 6th October.

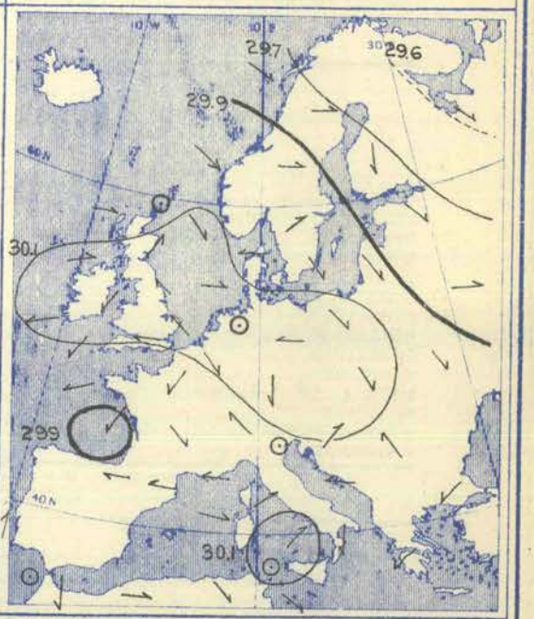
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over our Islands and the northern parts of the Continent generally, but foggy over central England, and dull in the north and east of Scotland, with rain at Wick. Fine in Greece and southern Italy, but cloudy and unsettled over central and southern Europe as a whole, with rain in several parts of Austria and south Germany, as well as at Limoges. Slight showers falling later at some of our own northern, eastern and southern stations, and larger quantities of rain in Denmark, the west and south of France, Austria and northern Italy; lightning seen at Rochefort.

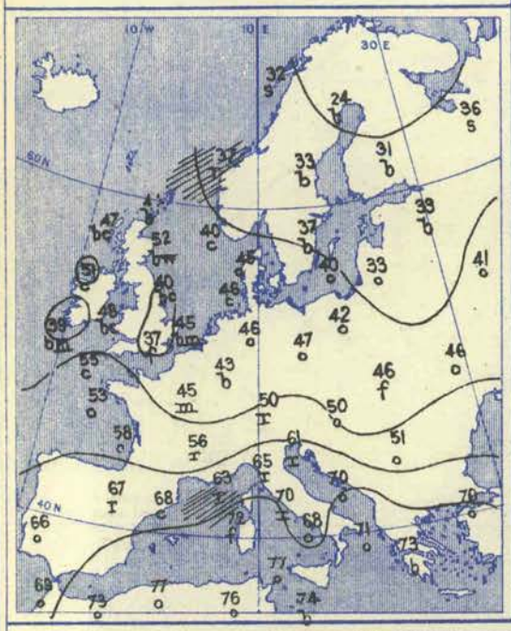
*Temperature* fallen in most countries. Morning readings highest, 76° at Algiers, 75° at La Calle, and 73° at Palermo, Malta and Oran; above 65° over southern Europe generally. Lowest (1) 29° at Parsonstown, and 34° at Loughborough; (2) 33° at Bodö, Haparanda, Karlstad and Kuopio. Daily maxima below 55° on several parts of our north-western, northern and eastern coasts, and below 60° at all our own stations excepting Jersey; thermometer exceeding 70° in the west of France and most parts of southern Europe, and reaching 86° at Sanguinaire and 84° at Palermo. Frost occurring at night over the inland parts of England and Ireland.

*Wind* light from the South-Westward and Westward over the northern parts of our Islands and from the North-Westward in Norway, Denmark, Germany and Austria; strong from the latter quarter in Sweden; South-Westerly or Southerly in Russia. Light to moderate from the Eastward or North-Eastward over the southern parts of our Islands, and also over the Netherlands and the greater part of France; Southerly on the Portuguese coasts; variable in Italy. No important change occurring over western Europe during day, but wind moderating in Sweden.

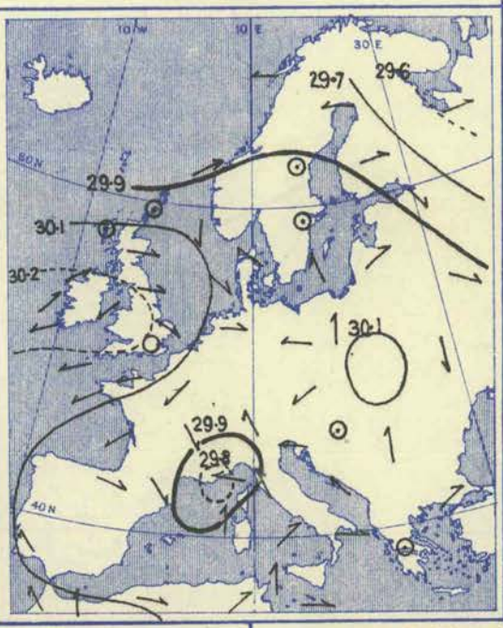
*Barometer* highest, 30·2 ins. and upwards over Ireland and the northern and central parts of England; 30·1 ins. and upwards in an anticyclone embracing nearly the whole of our Islands, the Netherlands, Germany and the north-east of France, and also in a smaller system over southern Italy. Lowest, 29·5 ins. and less in a depression over Lapland, 29·9 ins. and less in another disturbance over the north-west of Spain and the southern parts of the Bay of Biscay. Both depressions moving eastwards later; anticyclone spreading eastwards over Austria.

## Saturday, 7th October.

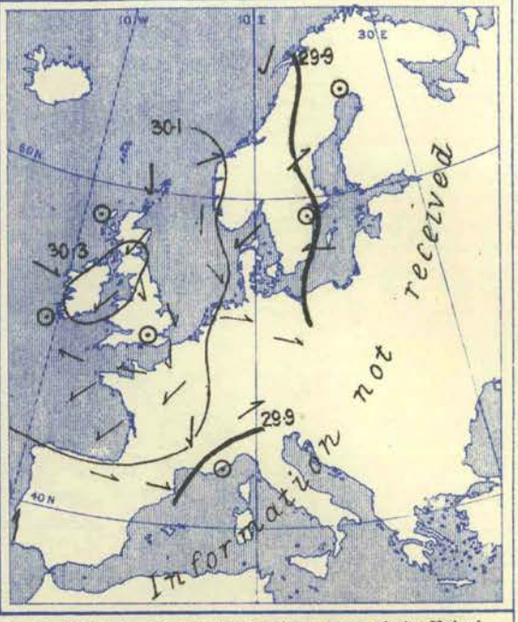
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.




*Weather* in morning fine over our Islands, and the neighbouring parts of the Continent generally, but foggy in the eastern and central parts of England. Fine also over Sweden and northern Russia, but dull in most other parts of the Continent, with rain over northern Italy, and the southern parts of France and Germany; rain falling also at Christiansund, and snow at Bodö. Slight rain falling later at one or two of our own northern stations, and larger quantities in some parts of Scandinavia, Denmark, Germany and the south of France.

*Temperature* risen in the west and north of our Islands, but fallen elsewhere. Morning readings highest, 77° at Palermo and Algiers, and 76° at La Calle, above 70° at most of the Mediterranean stations. Lowest, (1) 24° at Haparanda, 30° at Uleaborg, and 31° at Kuopio; (2) 30° at Parsonstown and 33° at Loughborough. Daily maxima, below 60° over the greater part of our Islands, and below 55° at some of our northern and eastern stations; thermometer exceeding 70° in the south of France, and reaching 80° at Perpignan. Ground frost occurring in many parts of the United Kingdom at night.

*Wind* light from the Westward or South-Westward over the northern parts of the United Kingdom, from the Northward in the south of Norway and the Netherlands, and from the North-Eastward over the south of our Islands, and the north of France; Westerly in the south of France. Southerly or South-Easterly over Italy and the Spanish Peninsula. Variable in the west of Norway; calm in the Gulf of Bothnia; North-Westerly over Russia; variable in Germany; calm or variable in Austria. Subsequently veering to the Northward on our own northern coasts; no important change occurring elsewhere.

*Barometer* highest, 30·2 ins. and upwards over Ireland and the greater part of England; 30·1 ins. and upwards in an anticyclone covering the whole of our Islands, and the adjacent parts of the Continent and the North Sea, as well as in smaller systems lying respectively over Poland and over Algeria. Lowest, 29·6 ins. and less over northern Russia; 29·8 ins. and less in a shallow depression over the extreme south of France. Anticyclone over our Islands increasing later in height, and spreading over nearly the whole of western Europe.

### GENERAL NOTES.

At the commencement of the week the western countries were affected by a rather deep cyclonic system, which had previously been formed over England. On the 1st the centre of the disturbance moved slowly north-eastwards from the mouth of the Channel to our east coasts, its progress being attended by gales from various directions and by heavy rains in many parts of the United Kingdom. On reaching the North Sea the disturbance moved far more rapidly, and ultimately passed northwards across Norway. An anticyclone now travelled eastwards from the Atlantic over the south-western and southern parts of Europe, while a large depression moved in a similar direction across the northern parts of Scandinavia, the passage of the latter system being accompanied by strong winds and gales from South West or West on many parts of our coasts.

As the depression passed away a new anticyclone spread from the Atlantic over our Islands, and ultimately over nearly the whole of western Europe. The wind consequently fell light, and the weather improved, while fog and frost set in at night over the central parts of our Islands. Over southern Europe the weather at the close of the week was affected by a shallow depression which was formed over the Bay of Biscay on the 6th, and which afterwards moved in an east-south-easterly direction, the disturbance occasioning heavy rain over the south of France and northern Italy.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 236.

| Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 24·1 | ? | 31 | ? | BRIGHTON | 25·2 | − 7·8 | 32 | − 8 |
| STRATHPEFFER SPA | 17·8 | − 7·2 | 23 | − 8 | WORTHING | 27·7 | ? | 35 | ? |
| EDINBURGH | | | | | BOGNOR | 25·3* | ? | 32* | ? |
| MORPETH | 31·6 | ? | 41 | ? | EASTBOURNE | 21·7 | −11·8 | 27 | −15 |
| NEWCASTLE-ON-TYNE | 24·6 | ? | 32 | ? | VENTNOR HOSPITAL | 24·3 | ? | 31 | ? |
| OSWALDKIRK (Yorkshire) | 27·9 | + 3·9 | 35 | + 5 | SOUTHPORT | 35·2 | ? | 45 | ? |
| LOWESTOFT | 18·9 | ? | 24 | ? | COLWYN BAY | | ? | | ? |
| HOLLESLEY BAY | 16·2 | ? | 20 | ? | RHYL | | | | |
| SHEFFIELD | 16·6 | ? | 21 | ? | ABERDOVEY | 35·9* | ? | 45* | ? |
| WORKSOP | 18·4 | − 6·3 | 23 | − 7 | TENBY | 29·3 | − 1·0 | 37 | − 1 |
| THURCASTON (Leicestershire) | 17·3 | − 6·0 | 22 | − 7 | NEWQUAY | | | | |
| MARGATE | 19·1 | − 8·9 | 24 | −11 | TORQUAY | 28·4 | − 2·6 | 36 | − 2 |
| WESTBOURNE (Emsworth) | 21·7* | − 9·8 | 27* | −12 | GUERNSEY | 26·5* | − 6·5 | 33* | − 8 |
| WATERGATE (Emsworth) | 21·4 | ? | 27 | ? | | | | | |

* The values at Westbourne, Bognor, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| Date of Report. | Name of Stations. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week ending July 22nd, 1899 | Clifton | 86 | 55 | 78·4 | 59·1 | 68·1 | + 7·7 | 183 | 0 | 2 | 0·05 | −0·75 | — | — | — | — |
| " " " " " | Tenby | — | — | — | — | — | — | — | — | — | — | — | 52·7 | + 7·7 | 47 | + 7 |
| " " " 29th, " | Hereford | 79 | 44 | 73·7 | 49·8 | 60·9 | + 0·7 | 132 | 0 | 1 | 0·03 | −0·55 | — | — | — | — |
| " " " " " | Cranley | 85 | 48 | 76·6 | 54·5 | 64·8 | + 2·7 | 160 | 0 | 1 | 0·45 | ? | — | — | — | — |
| " " " " " | Strathpeffor Spa | — | — | — | — | — | — | — | — | — | — | — | 25·8 | − 1·7 | 22 | − 1 |
| " " " " " | Oswaldkirk | — | — | — | — | — | — | — | — | — | — | — | 41·8 | + 7·7 | 38 | + 8 |
| " " " " " | Colwyn Bay | — | — | — | — | — | — | — | — | — | — | — | 40·5 | ? | 38 | ? |
| " " August 5th, " | | | | | | | | | | | | | | | | |

WYMAN & SONS, LTD. LITH. 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 41.] *Third Series.* WEEK ENDING SATURDAY, OCTOBER 14TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 242.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 61 | 33 | 52·5 | 42·6 | 47·4 | 1 above | 38 | − 4 | 0 | − 5 | 2078 | +296 | 627* | − 8 |
| | 1. SCOTLAND, EAST | 68 | 25 | 55·4 | 42·7 | 48·9 | 2 above | 48 | + 2 | 0 | − 6 | 2298 | +143 | 678 | + 15 |
| | 2. ENGLAND, N.E. | 63 | 31 | 55·7 | 42·6 | 48·9 | 0 (average) | 48 | −10 | 0 | − 2 | 2602 | +272 | 457 | − 95 |
| | 3. ENGLAND, EAST | 67 | 31 | 58·0 | 38·1 | 47·8 | 2 below | 57 | − 9 | 11 | + 8 | 3027 | +339 | 432 | −189 |
| | 4. MIDLAND COUNTIES | 67 | 30 | 57·9 | 36·8 | 47·1 | 2 below | 58 | − 4 | 15 | +10 | 3016 | +341 | 499 | −128 |
| | 5. ENGLAND, SOUTH | 65 | 30 | 58·4 | 39·6 | 48·8 | 3 below | 58 | −15 | 7 | + 5 | 3392 | +475 | 301 | −179 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 60 | 27 | 54·5 | 42·3 | 48·2 | 0 (average) | 43 | −11 | 0 | − 3 | 2446 | +186 | 417 | − 50 |
| | 7. ENGLAND, N.W. | 62 | 28 | 55·8 | 41·8 | 48·6 | 1 below | 47 | −14 | 1 | − 1 | 2811 | +335 | 315 | −147 |
| | 8. ENGLAND, S.W. | 65 | 28 | 57·9 | 41·0 | 49·2 | 2 below | 55 | −13 | 3 | + 2 | 3248 | +523 | 243 | −120 |
| | 9. IRELAND, NORTH | 63 | 30 | 56·1 | 43·0 | 49·3 | 1 above | 51 | − 3 | 0 | − 2 | 2653 | +275 | 325 | − 73 |
| | 10. IRELAND, SOUTH | 65 | 30 | 58·1 | 42·4 | 50·3 | 0 (average) | 58 | − 4 | 0 | − 2 | 3089 | +401 | 250 | − 53 |
| | —CHANNEL ISLANDS | 62 | 40 | 59·2 | 47·5 | 53·2 | 1 below | 78 | −11 | 0 | 0 | 3832 | +750 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 242.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 6 | 19 | 7 more | 178 | − 9 | 38·2* | + 1·8 | 17 | − 2 | 23 | − 3 | 1132 | +147 | 29 | + 4 |
| | 1. SCOTLAND, EAST | 3 | 3 | 5 less | 159 | + 6 | 25·4 | + 1·1 | 23 | + 2 | 31 | + 3 | 1222 | + 73 | 32 | + 2 |
| | 2. ENGLAND, N.E. | 2 | 3 | 4 less | 139 | − 4 | 19·5 | − 0·5 | 24 | + 3 | 32 | + 6 | 1218 | +100 | 33 | + 3 |
| | 3. ENGLAND, EAST | 2 | 1 | 5 less | 126 | −13 | 16·8 | − 3·1 | 49 | +23 | 66 | +32 | 1683 | +267 | 44 | + 8 |
| | 4. MIDLAND COUNTIES | 1 | 3 | 4 less | 123 | −13 | 20·1 | − 1·5 | 41 | +19 | 55 | +27 | 1491 | +309 | 41 | + 8 |
| | 5. ENGLAND, SOUTH | 1 | 1 | 7 less | 108 | −24 | 17·5 | − 4·2 | 48 | +19 | 63 | +24 | 1797 | +343 | 48 | +10 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 5 | 10 | 2 less | 172 | +12 | 37·7 | + 0·2 | 23 | + 1 | 32 | + 2 | 1254 | + 36 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 3 | 7 | 2 less | 152 | + 4 | 28·1 | + 1·9 | 35 | +12 | 47 | +16 | 1455* | +235 | 39 | + 7 |
| | 8. ENGLAND, S.W. | 2 | 3 | 7 less | 135 | −14 | 28·6 | − 0·9 | 38 | +11 | 50 | +15 | 1742 | +264 | 47 | + 7 |
| | 9. IRELAND, NORTH | 4 | 8 | 1 less | 178 | + 4 | 28·4 | + 0·1 | 30 | + 8 | 40 | +11 | 1276 | +158 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 3 | 5 | 3 less | 146 | −10 | 30·5 | + 1·1 | 40 | +14 | 54 | +21 | 1455 | +184 | 39 | + 5 |
| | — CHANNEL ISLANDS | 2 | 1 | 8 less | 128 | −28 | 20·2 | − 3·9 | 44 | +13 | 57 | +18 | 1916 | +277 | 54 | + 8 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was mostly fine over the Kingdom as a whole, but some rain was experienced in all districts about the middle of the week, while in the extreme north and north-west the conditions were fine and dry only at the commencement and end of the period.

*Temperature* was slightly above the mean in Scotland N. and E., and in Ireland N., and just equal to it in England N.E., Scotland W. and Ireland S. ; elsewhere it was rather below the normal The highest of the maxima were registered between the 10th and 12th, and ranged from 68° in Scotland E., and 67° in England E. and the Midland Counties, to 60° in Scotland W. The lowest of the minima, which were mainly recorded either at the beginning or end of the week, varied from 25° in Scotland E., 27° in Scotland W., and 28° in England N.W. and S.W., to 33° in Scotland N., and 40° in the Channel Islands.

*Rainfall* was considerably more than the mean in Scotland N., but less in all other parts of the Kingdom, the deficit in most districts being large.

*Bright Sunshine* greatly exceeded the mean generally, but was deficient in Scotland N. The percentage of the possible duration ranged from 66 in England E., 63 in England S., and 57° in the Channel Islands, to 32 in Scotland W. and England N.E., 31 in Scotland E., and 23 in Scotland N.

*Barometer and Wind.*—At the commencement of the week a large anticyclone covered almost the whole of our Islands, and also extended considerably to the eastward and southward. By the 9th, however, this system had receded south-eastwards, and depressions appearing in the far north, caused the winds over all our northern districts to become Southerly or South-Westerly. No definite depression approached our immediate neighbourhood until Thursday, when the centre of a somewhat important system lay off the north of Scotland, and a very shallow secondary over the English Channel. The northern disturbance subsequently travelled east-south-eastwards, and, as it at the same time increased in depth, strong North-Westerly winds and gales were experienced on many parts of our north and north-west coasts. By the end of the week the depression was disappearing to the northward ; another anticyclone had appeared over the United Kingdom, accompanied in most places by light winds from some northerly point.

207 | 90 Wy. & S., Ltd.
913 | 70 10 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 241 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head ⚓ | 54 | 37 | 50·9 | 42·0 | 46·3 | − 0·3 | 30 | 0 | 7 | 2·14 | + 1·21 | * | * | * | * |
| | Stornoway | 56 | 34 | 51·7 | 41·7 | 46·6 | + 0·2 | 33 | 1 | 5 | 1·27 | + 0·16 | 15·6 | − 4·9 | 21 | − 6 |
| | Wick | 60 | 34 | 54·7 | 43·9 | 49·1 | + 2·3 | 50 | 0 | 5 | 0·43 | − 0·22 | * | * | * | * |
| | Lairg ⚓ | 60 | 32 | 55·9 | 39·2 | 47·3 | + 2·2 | 49 | 8 | 6 | 0·96 | + 0·08 | * | * | * | * |
| | Glencarron ⚓ | 56 | 34 | 51·4 | 42·8 | 47·0 | + 1·2 | 35 | 0 | 6 | 3·37 | + 1·39 | * | * | * | * |
| | Fort Augustus ⚓ | 61 | 33 | 53·4 | 42·5 | 47·8 | + 0·1 | 41 | 0 | 6 | 1·16 | + 0·19 | 17·4 | + 2·8 | 24 | + 5 |
| | Fort William ⚓ | 58 | 35 | 52·7 | 44·5 | 48·5 | + 0·4 | 46 | 0 | 5 | 3·17 | + 1·40 | 12·6 | − 6·8 | 17 | − 8 |
| 1. SCOTLAND E. | Nairn | 63 | 35 | 55·7 | 42·7 | 49·0 | + 2·1 | 49 | 0 | 4 | 0·19 | − 0·41 | * | * | * | * |
| | Aberdeen | 68 | 34 | 56·1 | 43·4 | 49·6 | + 1·7 | 53 | 0 | 5 | 0·42 | − 0·30 | 32·7 | + 9·9 | 44 | +13 |
| | Braemar ⚓ | 60 | 30 | 51·7 | 40·5 | 45·9 | + 1·8 | 34 | 4 | 4 | 0·34 | − 0·48 | 19·8† | + 0·2† | 27† | + 2† |
| | Ochtertyre ⚓ | 63 | 25 | 56·0 | 40·4 | 48·0 | + 0·7 | 49 | 4 | 1 | 0·30 | − 0·63 | * | * | * | * |
| | Leith | 64 | 35 | 57·6 | 44·4 | 50·8 | + 1·9 | 62 | 0 | 2 | 0·14 | − 0·36 | * | * | * | * |
| | Marchmont ⚓ | 59 | 32 | 55·3 | 44·9 | 50·0 | + 3·2 | 56 | 0 | 2 | 0·28 | − 0·52 | 16·8 | − 4·0 | 23 | − 4 |
| 2. ENGLAND, N.E. | Alnwick Castle | 61 | 33 | 55·3 | 43·9 | 49·4 | + 1·6 | 52 | 0 | 2 | 0·13 | − 0·59 | * | * | * | * |
| | Durham | 60 | 31 | 54·7 | 41·3 | 47·8 | − 0·2 | 44 | 2 | 3 | 0·39 | − 0·29 | 25·3 | + 3·3 | 34 | + 6 |
| | Shields | 63 | 33 | 56·1 | 41·9 | 48·8 | − 0·1 | 48 | 0 | 1 | 0·02 | − 0·56 | * | * | * | * |
| | Scarborough ℳ | 63 | 35 | 56·2 | 42·4 | 49·1 | − 0·4 | 50 | 0 | 1 | 0·44 | − 0·28 | ? | ? | ? | |
| | Spurn Head | 59 | 37 | 56·0 | 43·6 | 49·6 | − 1·1 | 53 | 0 | 1 | 0·25 | − 0·28 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 66 | 32 | 58·9 | 36·7 | 47·5 | − 2·1 | 61 | 15 | 1 | 0·38 | − 0·27 | 45·2 | +20·9 | 60 | +28 |
| | Yarmouth | 62 | 36 | 55·4 | 41·7 | 48·4 | − 2·4 | 46 | 1 | 2 | 0·06 | − 0·66 | * | * | * | * |
| | Geldeston | 66 | 33 | 59·3 | 36·9 | 47·8 | − 2·6 | 62 | 14 | 1 | 0·04 | − 0·60 | 45·6 | +17·4 | 61 | +24 |
| | Cambridge | 67 | 31 | 61·0 | 35·8 | 48·0 | − 1·8 | 68 | 17 | 1 | 0·13 | − 0·42 | 55·8 | +29·7 | 74 | +40 |
| | Felixstowe | 62 | 37 | 56·5 | 42·6 | 49·3 | − 1·2 | 51 | 0 | 2 | 0·06 | ? | 53·7 | ? | 72 | ? |
| | Rothamsted | 62 | 31 | 57·0 | 34·7 | 45·5 | − 3·5 | 55 | 20 | 2 | 0·14 | − 0·56 | 50·7 | +24·3 | 68 | +34 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 64 | 33 | 57·6 | 38·7 | 47·9 | − 0·9 | 55 | 9 | 1 | 0·46 | − 0·18 | * | * | * | * |
| | Loughborough | 67 | 31 | 60·3 | 36·3 | 47·9 | − 1·7 | 65 | 16 | 1 | 0·14 | − 0·50 | * | * | * | * |
| | Stamford (Ketton) | 66 | 30 | 58·9 | 35·7 | 47·0 | − 2·8 | 61 | 18 | 1 | 0·26 | − 0·44 | * | * | * | * |
| | Cheadle ℳ | 61 | 38 | 55·3 | 39·9 | 47·4 | − 0·7 | 47 | 6 | 2 | 0·79 | + 0·05 | * | * | * | * |
| | Shirley (near Solihull) | 63 | 31 | 57·7 | 36·5 | 46·8 | − 1·8 | 57 | 15 | 1 | 0·16 | ? | * | * | * | * |
| | Churchstoke ℳ | | | | | | | | | | | | | | | |
| | Hereford (Belmont) ℳ | 62 | 30 | 57·7 | 35·8 | 46·4 | − 2·7 | 57 | 17 | 2 | 0·38 | − 0·28 | * | * | * | * |
| | Cirencester | 62 | 32 | 56·9 | 35·3 | 45·8 | − 2·6 | 55 | 19 | 1 | 0·21 | − 0·53 | 47·4 | +24·0 | 63 | +32 |
| | Oxford | 64 | 33 | 59·0 | 36·3 | 47·3 | − 2·5 | 61 | 16 | 1 | 0·19 | − 0·47 | 44·4 | +19·4 | 59 | +26 |
| 5. ENGLAND, S. | London | 65 | 33 | 60·1 | 35·9 | 47·6 | − 3·1 | 65 | 17 | 1 | 0·07 | − 0·56 | 30·1† | +10·7† | 40† | +13† |
| | Cranley ℳ | 61 | 30 | 58·5 | 35·2 | 46·9 | − 4·0 | 60 | 19 | 1 | 0·08 | ? | * | * | * | * |
| | Dungeness | 60 | 32 | 57·7 | 39·6 | 48·4 | − 4·0 | 55 | 7 | 2 | 0·17 | − 0·61 | * | * | * | * |
| | Hastings (St. Leonards) | 61 | 40 | 57·3 | 43·2 | 50·0 | − 1·9 | 56 | 0 | 2 | 0·21 | − 0·67 | 52·5 | +22·2 | 69 | +29 |
| | Southampton | 65 | 32 | 60·3 | 37·9 | 48·8 | − 3·0 | 65 | 11 | 1 | 0·09 | − 0·71 | 45·6 | +18 6 | 60 | +23 |
| | Portland Bill | 61 | 42 | 57·9 | 45·9 | 51·7 | − 0·6 | 68 | 0 | 2 | 0·05 | ? | * | * | * | * |
| | Shaftesbury ℳ | 61 | ? | 57·2 | ? | ? | ? | ? | ? | 1 | 0·13 | − 0·77 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 59 | 34 | 54·0 | 42·9 | 48·3 | − 0·1 | 44 | 0 | 6 | 1·58 | − 0·20 | * | * | * | * |
| | Glasgow | 58 | 34 | 53·1 | 43·9 | 48·4 | + 1·0 | 45 | 0 | 4 | 0·60 | − 0·25 | 13·9 | − 3·1 | 19 | − 5 |
| | Glenlee ⚓ | 59 | 27 | 55·4 | 41·3 | 48·1 | + 0·3 | 46 | 2 | 4 | 1·08 | − 0·21 | * | * | * | * |
| | Douglas (Isle of Man) | 60 | 34 | 55·4 | 41·1 | 48·0 | − 1·2 | 46 | 3 | 4 | 0·89 | − 0·08 | 32·8 | + 5·7 | 44 | + 8 |
| 7. ENGLAND, N.W. | Newton Reigny | 60 | 28 | 54·9 | 40·1 | 47·3 | − 0·1 | 45 | 5 | 1 | 0·46 | ? | 26·9 | ? | 36 | ? |
| | Stonyhurst | 57 | 36 | 53·9 | 41·6 | 47·6 | − 0·8 | 41 | 1 | 3 | 0·53 | − 0·63 | 30·1 | + 7·1 | 40 | + 10 |
| | Blackpool ℳ | 59 | 32 | 56·3 | 40·4 | 48·1 | − 1·8 | 49 | 4 | 2 | 0·71 | - 0·26 | 30·7 | + 8·2 | 41 | + 11 |
| | Manchester (Prestwich) | 61 | 35 | 56·1 | 37·2 | 46·4 | − 2·4 | 51 | 13 | 3 | 0·83 | − 0·13 | 32·6 | ? | 43 | ? |
| | Liverpool Obsy. (Bidston) | 60 | 38 | 55·7 | 42·4 | 48·9 | - 1·2 | 48 | 0 | 3 | 0·75 | − 0·07 | 38 8 | ? | 52 | ? |
| | Llandudno ℳ | 62 | 41 | 58·0 | 44·8 | 51·2 | − 0·2 | 64 | 0 | 4 | 1·11 | + 0·22 | 41·5 | +21·5 | 55 | + 28 |
| | Holyhead | 59 | 41 | 56·0 | 46·3 | 51·0 | - 0·8 | 63 | 0 | 4 | 0·68 | − 0·27 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 65 | 29 | 59·7 | 34·4 | 46·7 | − 1·7 | 65 | 21 | 3 | 0·71 | − 0·51 | * | * | * | * |
| | Pembroke | 59 | 45 | 56·6 | 48·6 | 52·5 | + 0·3 | 74 | 0 | 2 | 0·20 | − 0·72 | 41·8 | +15·8 | 56 | +22 |
| | Clifton | 62 | 37 | 58·0 | 40·8 | 49·2 | − 0·9 | 55 | 3 | 1 | 0·09 | − 0·76 | * | * | * | * |
| | Arlington (N. Devon) | 59 | 34 | 56·9 | 40·3 | 48·4 | − 1·4 | 52 | 5 | 3 | 0·63 | − 0·67 | * | * | * | * |
| | Cullompton ℳ | 63 | 28 | 58·9 | 34·7 | 46·4 | − 3·4 | 61 | 20 | 1 | 0·12 | − 0·78 | 31·7 | + 8·0 | 42 | +11 |
| | Falmouth | 60 | 41 | 57·0 | 46·6 | 51·7 | − 0·9 | 68 | 0 | 2 | 0·30 | − 0·90 | 38·9 | + 9·9 | 51 | +14 |
| | Plymouth | 61 | 33 | 58·3 | 41·6 | 49·7 | − 2·4 | 56 | 1 | 2 | 0·16 | − 0·74 | 35·7 | + 9·5 | 47 | +11 |
| 9. IRELAND, N. | Malin Head | 61 | 43 | 54·6 | 47·4 | 50·9 | + 1·2 | 62 | 0 | 5 | 0·67 | ? | * | * | * | * |
| | Londonderry | 63 | 38 | 57·7 | 43·2 | 50·2 | + 1·4 | 57 | 0 | 4 | 0·69 | − 0·28 | * | * | * | * |
| | Edenfel (Omagh) | 60 | 30 | 54·6 | 40·6 | 47·4 | + 0·7 | 44 | 4 | 4 | 0·80 | − 0·05 | * | * | * | * |
| | Blacksod | 60 | 38 | 56·1 | 46·4 | 51·1 | + 0·7 | 64 | 0 | 5 | 1·10 | | * | * | * | * |
| | Markree Castle | 62 | 30 | 56·8 | 38·9 | 47·6 | - 0·6 | 52 | 9 | 5 | 1·05 | + 0·06 | 29·5 | + 8·3 | 39 | +11 |
| | Armagh | 62 | 32 | 57·5 | 40·4 | 48·7 | + 0·9 | 54 | 4 | 4 | 0·43 | − 0·25 | 30·9 | + 7·9 | 41 | +11 |
| | Donaghadee | 60 | 40 | 55·4 | 44·0 | 49·5 | 0·0 | 53 | 0 | 3 | 0·65 | − 0·05 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 65 | 37 | 58·0 | 41·9 | 49·7 | − 0·4 | 54 | 0 | 2 | 0·41 | − 0·21 | 43·4 | +16·4 | 58 | +22 |
| | Parsonstown | 64 | 30 | 58·3 | 38·4 | 48·1 | + 0·1 | 58 | 10 | 3 | 0·43 | − 0·29 | 42·8 | +18·3 | 57 | +26 |
| | Kilkenny | 65 | 30 | 58·6 | 39·4 | 48·7 | − 0·8 | 58 | 7 | 3 | 0·40 | − 0·27 | * | * | * | * |
| | Roche's Point | 61 | 38 | 58·0 | 46·0 | 51·8 | + 0·1 | 69 | 0 | 3 | 0·42 | − 0·48 | * | * | * | * |
| | Valencia | 61 | 36 | 57·9 | 45·7 | 51·6 | − 0·5 | 67 | 0 | 3 | 0·56 | − 0·59 | 35·0 | + 9·7 | 47 | +14 |
| | Killarney | | | | | | | | | | | | * | * | * | * |
| | Foynes | 64 | 37 | 58·0 | 44·7 | 51·2 | + 1·6 | 64 | 0 | 3 | 0·81 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 61 | 45 | 59·0 | 51·0 | 54·9 | + 0·9 | 90 | 0 | 1 | 0·02 | − 0·36 | 41·7 | ? | 55 | ? |
| | Jersey | 62 | 40 | 59·3 | 43·9 | 51·4 | − 3·2 | 66 | 0 | 2 | 0·23 | − 0·79 | 45·9 | +14·3 | 60 | +18 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ⚓ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

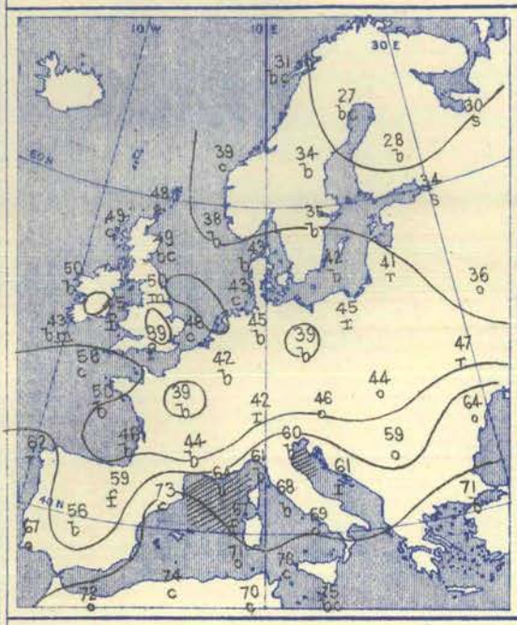
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 8th October.

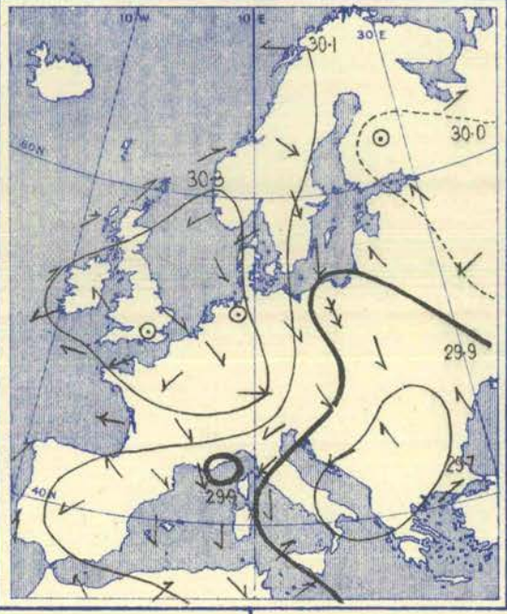
### Temperature and Weather.

#### 8 a.m.

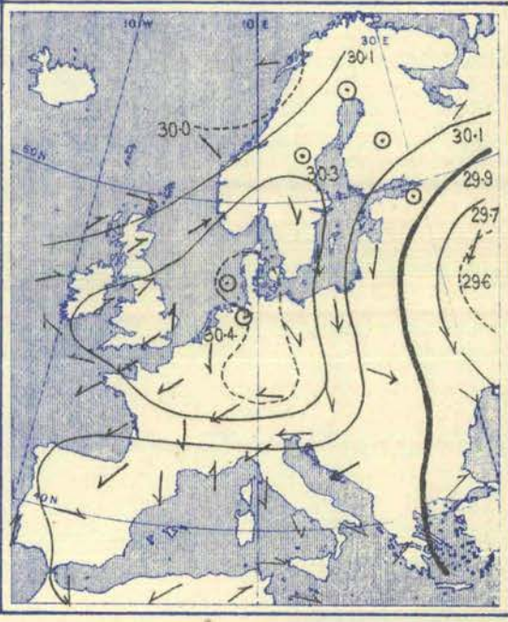


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fine over western and southern Europe as a whole, but foggy or misty at most of the English stations as well as in the south of Ireland. Fine in Scandinavia, but dull over Russia, Austria and south Germany, with rain in several places, and snow at St. Petersburg. Rain falling later in the Shetlands and west of Norway and also in the south of Russia, and heavy snow at Moscow. Fog clearing over England.

*Temperature* risen in the north and east of our Islands, but fallen in most other localities. Morning readings highest, 76° at Palermo, 75° at Malta and 74° at Algiers; above 60° at most of the Mediterranean, Adriatic and Spanish coast stations. Lowest (1) 27° at Haparanda, 28° at Kuopio and 29° at Uleaborg; (2) 33° at Oxford and Parsonstown; (3) 38° at Belfort and 39° at Paris. Rising during day to 60° or slightly above it at several of our own central and southern stations, to between 75° and 80° in many parts of southern Europe, and to 86° at Brindisi. Ground frost occurring over central England at night.

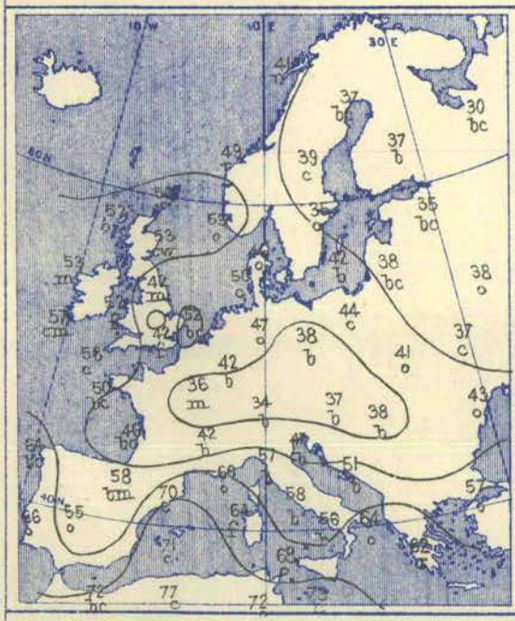
*Wind* light to fresh from the Eastward or North-Eastward over the south of our Islands and the greater part of France, Spain and northern Italy, but North-Westerly in the extreme south of France; Southerly over southern Italy. Light from the South-Westward on our own northern coasts; Northerly or North-Westerly over Sweden, Denmark, Germany and Austria, with a gale at Wisby and Neufahrwasser. Easterly or South-Easterly over the greater part of Russia. No important change occurring during day.

*Barometer* highest, 30·4 ins. and upwards over central England; 30·2 ins. and upwards in an anticyclone covering nearly the whole of western and central Europe; 30·0 ins. and upwards in another system over northern Russia. Lowest, 29·7 ins. and less in a depression over the Balkan provinces, and the southern part of the Adriatic. Depression subsequently moving north-eastwards to central Russia; new disturbances beginning to appear off the Norwegian coasts in evening.

## Monday, 9th October.

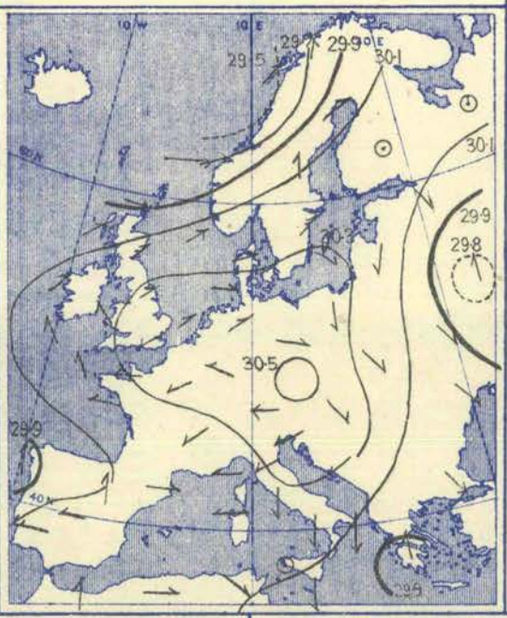
### Temperature and Weather.

#### 8 a.m.

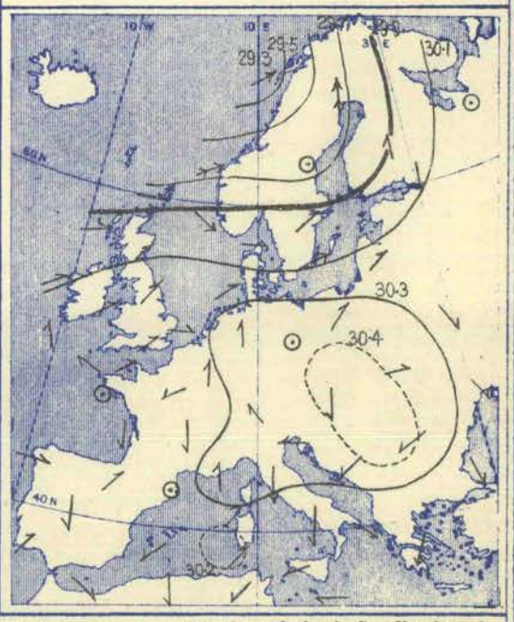


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fair or fine over the greater part of Europe, but foggy at many of the English stations, and misty over Ireland and central France. Dull on our own extreme north and north-west coasts, as well as in Norway, with rain at Bodö and Christiansund; dull also in Greece and southern Italy, with rain at Athens. A little rain falling later in the extreme north and north-west of our Islands, and larger quantities over the northern parts of Scandinavia—as much as 1·6 ins. at Christiansund; snow reported at Archangel.

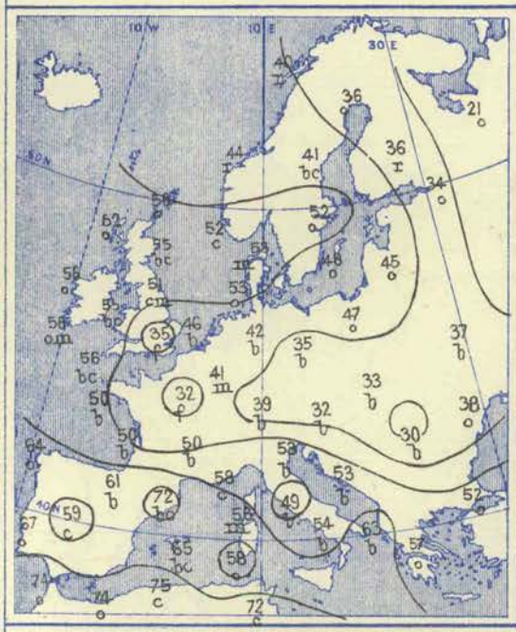
*Temperature* risen over our Islands and the northern parts of the Continent, but fallen elsewhere. Morning readings highest, 77° at Algiers, 75° at Malta, and 72° at Oran; above 65° at most of the Mediterranean and Spanish coast stations. Lowest, (1) 30° at Archangel, 32° at Hangö, and 34° at Cracow and Munich; (2) 36° at Oxford and 37° at Loughborough. Rising during day to 60° or slightly above it at several of the English and Irish stations; exceeding 70° in many parts of southern Europe and reaching 84° at San Fernando. Frost occurring over the central and south-eastern parts of England at night.

*Wind* South-Westerly over the northern parts of our Islands, and also in Scandinavia and Denmark; strong in force on the Norwegian coasts, with a gale at Christiansund. Light to moderate from the South-Eastward in the south of our Islands, and from the Eastward or North-Eastward over the greater part of France, Spain, southern Germany and northern Italy; Northerly over central and southern Italy. Northerly or North-Westerly over Austria and the western and southern parts of Russia. No important change occurring during day.

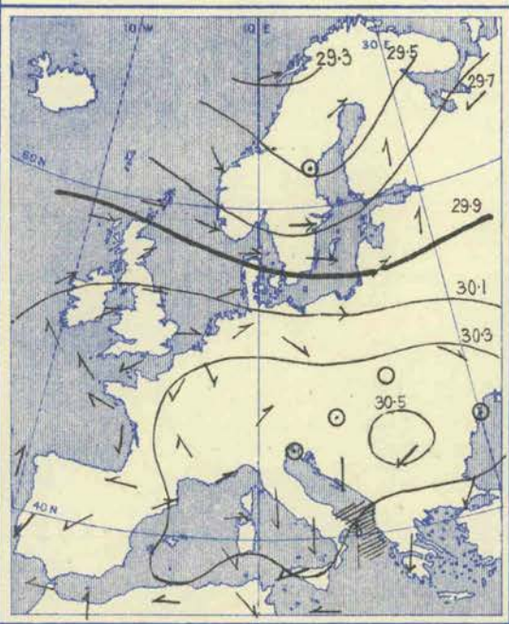
*Barometer* highest, 30·4 ins. and upwards over Germany and the Netherlands; 30·2 ins. and upwards in an anticyclone covering all the more central parts of Europe, and extending westwards over England and Ireland. Lowest, 29·6 ins. and less in a large and rather deep depression off the northern parts of the Norwegian coast; 29·8 ins. and less in a shallower disturbance over central Russia; 29·9 ins. and less in another system over Greece. Norwegian depression subsequently moving north-eastwards, but barometer falling a little in most parts of western Europe.

## Tuesday, 10th October.

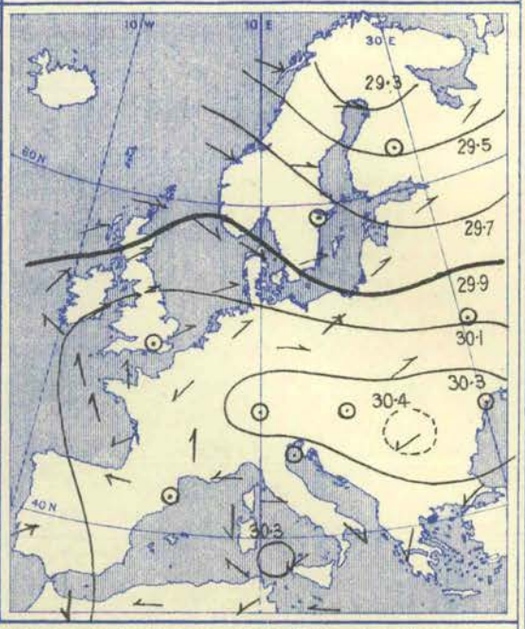
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over western, central and southern Europe as a whole, but foggy over the central parts of England and France. Dull on our own extreme western and northern coasts, and also over Scandinavia, Denmark and northern Russia, with rain at Bodö, Christiansund, Karlstad and Kuopio. Rain falling later at several of our own western and extreme northern stations—rather heavily at Blacksod Point.

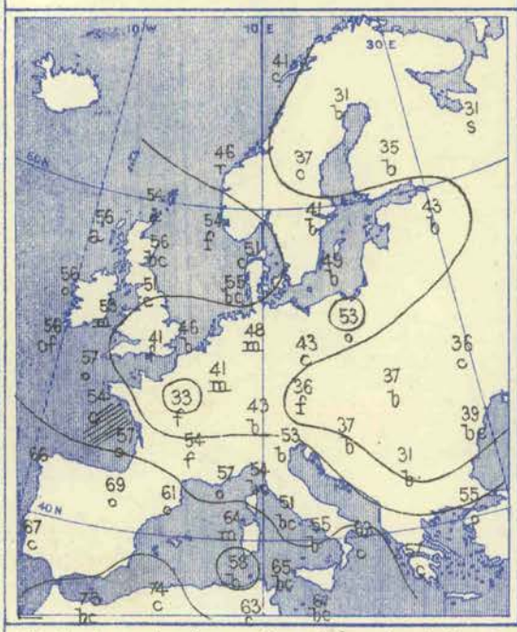
*Temperature* fallen over the greater part of England, as well as in Germany, Austria and Italy; risen in most other countries. Morning readings highest, 75° at Algiers, 74° at San Fernando, 72° at Barcelona and Sfax; above 69° at most of the Mediterranean and Spanish coast stations, and above 55° on our own extreme west and south-west coasts. Lowest, (1) 21° at Archangel; (2) 30° at Hermanstadt, 31° at Cracow and Kiev, and 32° in several parts of central Europe, as well as at Paris and Loughborough. Rising during day to 60° and upwards in most parts of the United Kingdom and to 68° at Aberdeen; exceeding 70° in the west of France and many parts of southern Europe, and reaching 81° at Lisbon.

*Wind* light to moderate from the Westward or South-Westward over all the more northern parts of our Islands, and fresh to strong from the same quarters in Scandinavia and Denmark. Light from the Eastward or North-Eastward over the English Channel, the north and west of France, and the Spanish Peninsula; variable in the south of France; Northerly in Italy and Greece. Variable in Germany; calm in Austria; light from the North-Westward in the south of Russia. No important change occurring during day.

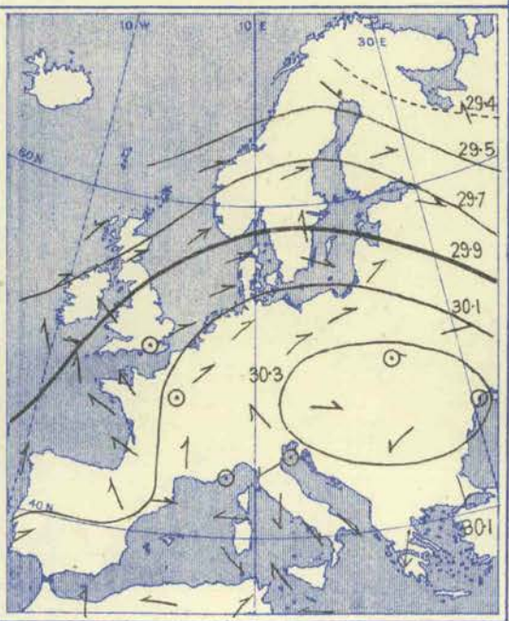
*Barometer* highest, 30·51 ins. at Hermanstadt; 30·1 ins. and upwards in an anticyclone embracing England, the greater part of Ireland, and all the more central and southern parts of the Continent. Lowest, 29·3 ins, and less in a depression over the north of Norway. Anticyclone moving slowly south-eastwards during day, and shallow depression appearing off the Portuguese coasts.

## Wednesday, 11th October.

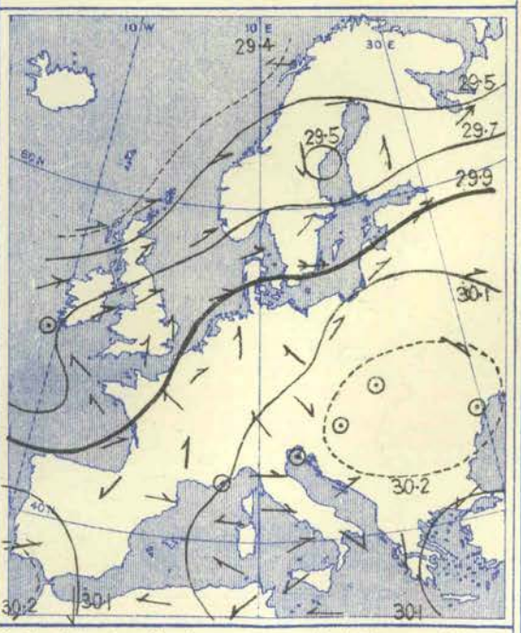
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the eastern and central parts of our Islands, as well as over Sweden, Denmark, Austria, Italy and the south of Russia. Cloudy elsewhere, with fog over central France and in London, and rain at some of our own western and extreme northern stations, as well as at Christiansund and Karlstad. Rain falling later in many parts of western Europe, heavily in the Shetlands and west of Norway, (3·0 ins. at Christiansund) and also in the west and south of France (over 2·0 ins. in many places, and as much as 5·1 ins. at Cape Camarat and 3·1 ins. at Marseilles). Thunderstorms occurring at Biarritz and Perpignan.

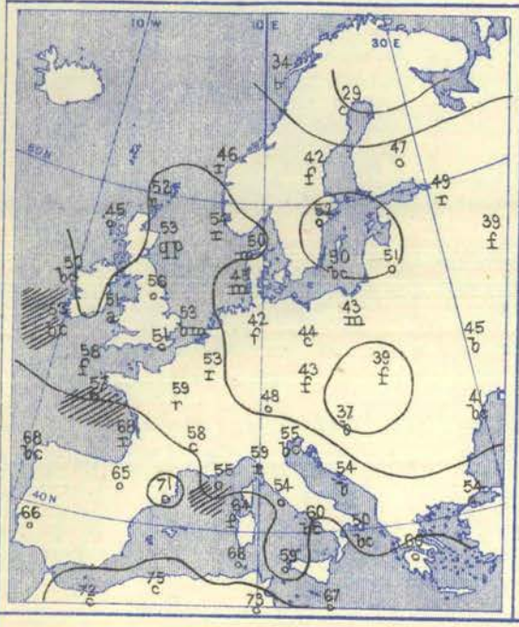
*Temperature* risen in most countries, but fallen in Sweden and Finland. Morning readings highest, 74° at Algiers, 73° at Oran, and 72° at Nemours, above 60° at the Mediterranean and Spanish coast stations generally, and very little below it in some parts of Ireland and Scotland. Lowest, (1) 31° at Archangel and Haparanda; (2) 31° at Hermanstadt and 34° at Nicolaieff; (3) 33° at Paris. Rising during day to 60° and upwards in many parts of the United Kingdom, and to 65° in London; exceeding 65° in the west and south of France and exceeding 70° over Spain and southern Italy.

*Wind* light to moderate from the South-Eastward in the west and north of France, and from the Southward or South-Westward over the Spanish Peninsula and the greater part of the United Kingdom; South-Westerly or Westerly in Scandinavia, Denmark and north Germany, and strong in force on the Norwegian coasts, Westerly or North-Westerly in Russia, calm or variable in Austria and the south of Russia; Northerly (North-Easterly to North-Westerly) in Greece and Italy. Subsequently shifting to the South-Westward in the west of France; increasing to a gale from West in the south of Sweden.

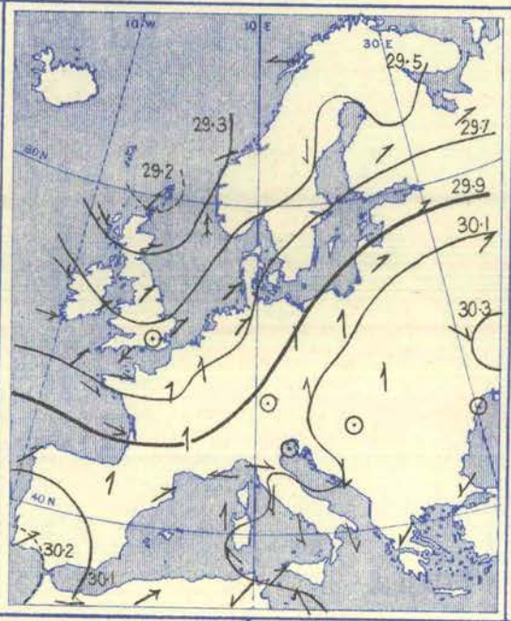
*Barometer* highest, 30·3 ins. and upwards over Austria and the extreme south of Russia; 30·1 ins. and upwards in an anticyclone embracing nearly the the whole of central and southern Europe. Lowest, 29·4 ins. and less over the extreme northern parts of Russia and Scandinavia; shallow depression lying over the Bay of Biscay. Large depression advancing later to our extreme northern coasts, and small secondary system appearing near the mouth of the English Channel.

## Thursday, 12th October.

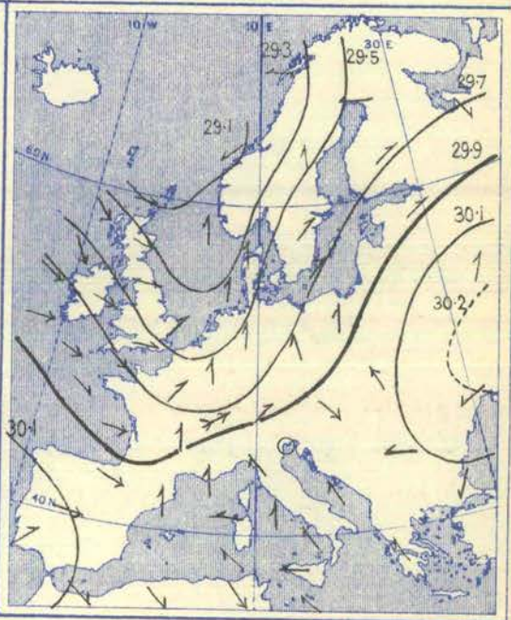
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy and unsettled over our Islands and a considerable portion of the Continent, with fog at the mouths of the English and Bristol Channels; rain falling in several parts of Great Britain, France and northern Italy, as well as in the west of Norway and over the Gulf of Finland. Fine over eastern Germany, Austria and the southern parts of Russia and Italy, with fog in a few places. Rain falling later over nearly the whole of Europe—rather heavily in places; thunderstorm occurring at Liverpool.

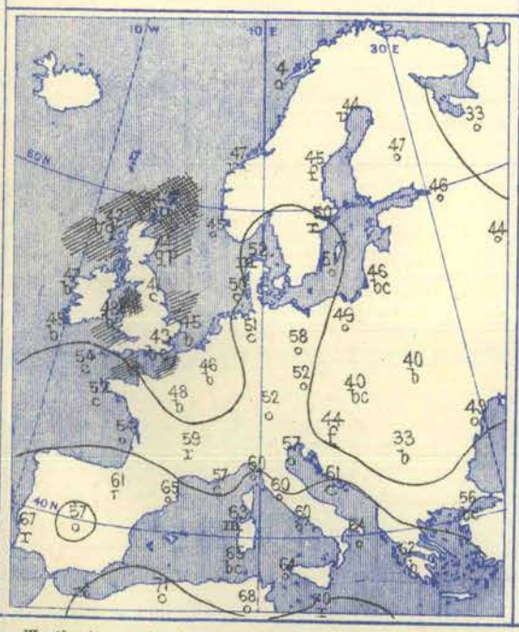
*Temperature* fallen in Ireland and Scotland, as well as in Denmark, north Germany, Spain and the extreme south of France, risen elsewhere. Morning readings highest, 75° at Algiers, 73° at Sfax, and 72° at Oran; above 65° at several of the Mediterranean and Spanish coast stations. Lowest, (1) 29° at Haparanda, and 34° at Bodö; (2) 33° at Kharkov, and 35° at Cracow. Rising during day to 60° and upwards at most of our central and southern stations, and to 67° at Loughborough; exceeding 70° over the Spanish Peninsula and the southern parts of France and Italy, and reaching 81° at Bilbao.

*Wind* moderate to fresh from the Westward or North-Westward over Ireland and the west of Scotland, and also in the west of France; moderate from South-West in most parts of Great Britain; light from south over the Netherlands, Denmark and Germany, strong from South or South-West over the south of Scandinavia; variable over the north of Scandinavia. Calm or variable over Austria and the south of Russia, Northerly or North-Westerly in Italy, Easterly in the extreme south of France. Subsequently veering to the North-Westward on all our own western and northern coasts, and increasing at night to a gale in the north of Scotland.

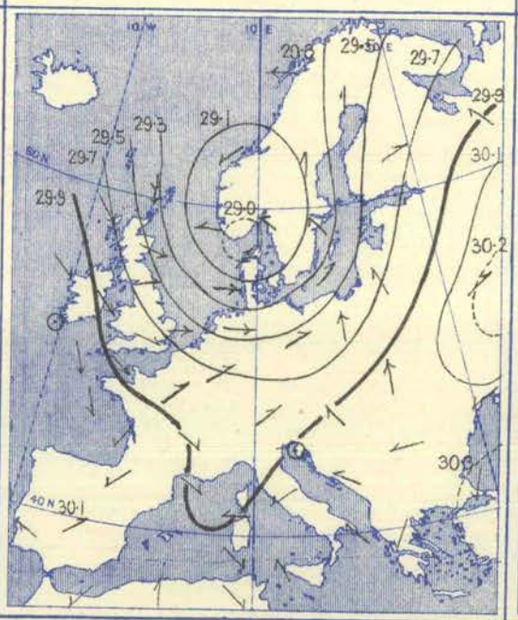
*Barometer* highest, 30·1 ins. to 30·3 ins. in an anticyclone covering all the south-eastern parts of Europe, and also in a smaller system over the central and southern parts of Spain. Lowest, 29·2 ins. and less in a depression with its centre a little to the north-west of the Shetlands. Depression subsequently moving slowly eastwards, and barometer rising on all our own western and northern coasts.

## Friday, 13th October.

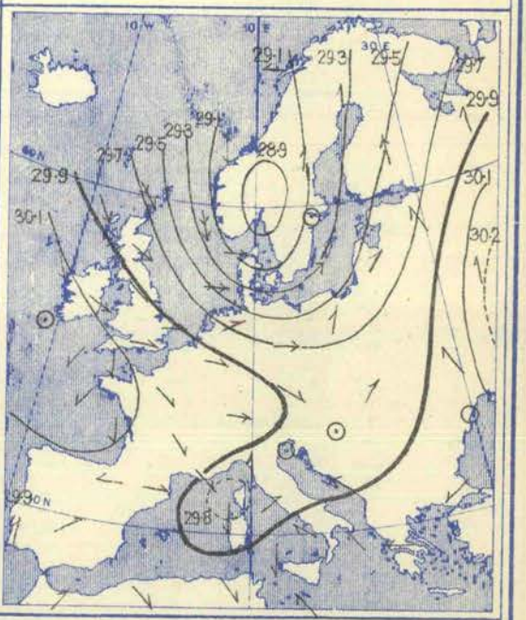
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over England, the south of Ireland and the north of France, as well as in Austria and Greece. Cloudy or dull in nearly all other parts of Europe, with passing showers in Scotland and the north of Ireland, and steady rain in many parts of Scandinavia, the south of France, northern Italy and the Spanish Peninsula. Showers falling during day in the north and north-west of our Islands generally, and considerable quantities of rain in Scandinavia, Denmark, Germany and Italy; thunderstorm occurring at Cuxhaven.

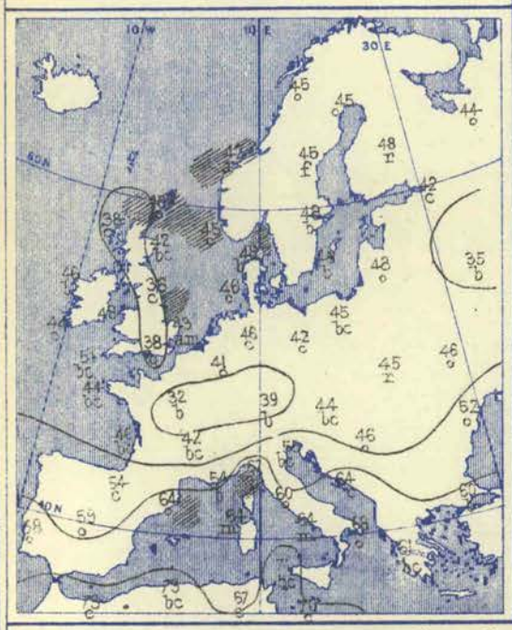
*Temperature* fallen in our Islands and France, risen elsewhere. Morning readings highest, 71° at Algiers and 70° at Malta and Oran; above 60° at most of the Mediterranean, Adriatic and Spanish coast stations. Lowest, (1) 33° at Archangel; (2) 33° at Hermanstadt and 37° at Buda-Pesth; (3) 38° at Parsonstown. Daily maxima below 45° in the north of Scotland, and below 55° in many other parts of our Islands; exceeding 65° in the south of France, and exceeding 70° over Spain and southern Italy. Ground frost in our Islands at night.

*Wind* fresh to strong from the North-Westward over the greater part of the United Kingdom with a gale in the north of Scotland; moderate to fresh from the Westward or South-Westward over Denmark, Germany, and the Netherlands; Southerly over Sweden, Russia and the Baltic; Easterly or North-Easterly on the Norwegian coasts. Light from the Northward (North-West to North-East) over the south of France, but variable in all other parts of southern Europe. Wind over our Islands moderating later, but North-Westerly to Westerly gales springing up on the eastern shores of the North Sea.

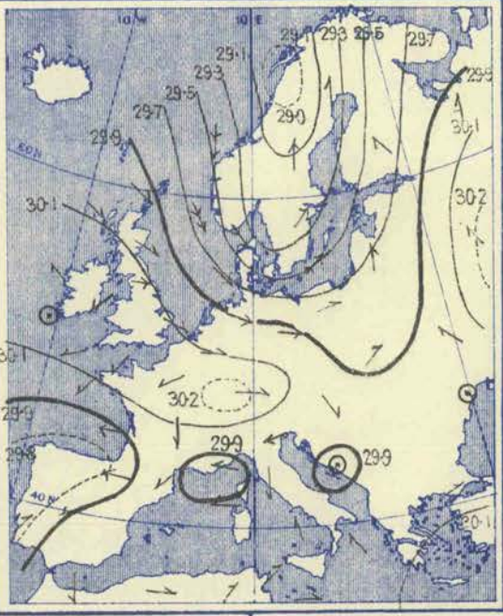
*Barometer* highest, 30·2 ins. and upwards in an anticyclone over central Russia; 30·0 ins. and upwards in another system spreading north-eastwards from the Atlantic. Lowest, 29·0 ins. and less in a large and rather deep depression, with its centre over the extreme south of Norway. Atlantic high-pressure system extending later over all the south-western parts of our Islands; Norwegian depression moving steadily northwards.

## Saturday, 14th October.

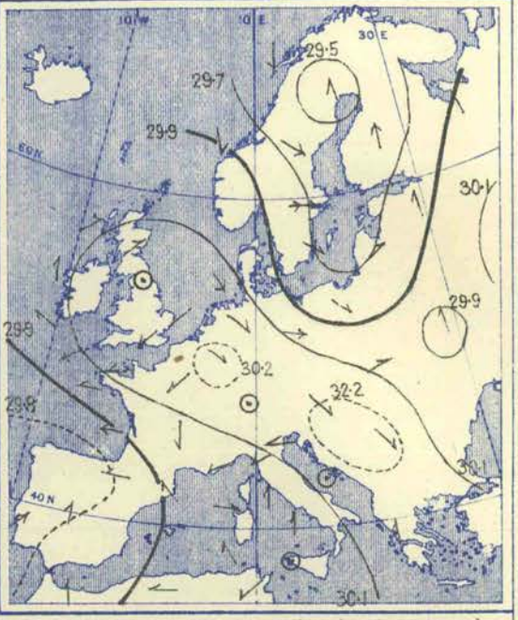
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over western Europe generally as well as in Denmark and the south of Scandinavia, Austria and south Germany. Cloudy or dull elsewhere, with rain at Christiansund, Uleaborg and Kuopio. A little rain falling later at some places in the west and south of France, and larger quantities over the northern parts of Scandinavia. Solar halo seen at Jersey. Thunderstorm occurring at Aumale.

*Temperature* fallen in most of the western and central countries but risen elsewhere. Morning readings highest, 73° at Oran and Algiers, 71° at Palermo, and 70° at Malta; above 65° at most of the Mediterranean and Spanish coast stations. Lowest, (1) 31° at Parsonstown and 36° at Shields; (2) 32° at Paris and 36° at Belfort; (3) 35° at Moscow. Daily maxima below 55° over a considerable portion of the United Kingdom and below 60° at many of the French stations; thermometer exceeding 70° over Spain and southern Italy, and reaching 86° at Cagliari. Frost occurring over the central parts of Great Britain at night; thermometer on grass at Loughborough falling to 20°.

*Wind* light to moderate from the North-Westward on our own north and east coasts, and strong to a gale from the same quarter on the eastern shores of the North Sea; Westerly or South-Westerly in Germany, and Southerly over Sweden and northern Russia, with a gale at Wisby and Hangö. South-Westerly on the Portuguese coasts; fresh from the Eastward in the west of France; light from the North-Eastward on our own south-west coasts. Freshening Easterly breezes setting in later over the English Channel; wind backing to the South-Westward in Scotland.

*Barometer* highest, 30·2 ins. and upwards in an anticyclone over central Russia; 30·1 ins. and upwards in another system covering the whole of our Islands with the northern and central parts of France and south Germany. Lowest, 29·0 ins. and less in a well-marked and rather deep depression over the north of Scandinavia; 29·8 ins. and less in a shallow disturbance over Portugal and the north of Spain. Depression in north subsequently passing away to the north-eastward; southern disturbance spreading slowly northwards over the Bay of Biscay.

### GENERAL NOTES.

Shortly after the commencement of the week the anticyclone which had previously advanced over western Europe began to move slowly but steadily south-eastwards across the Continent, while a large depression travelled in a north-easterly direction across the northern parts of Scandinavia. The latter disturbance occasioned South-Westerly to Westerly gales and heavy rain in several parts of northern Europe, and showers even on our own extreme north and north-west coasts, but in other regions the weather was mostly fair, with frosty foggy nights over the inland parts of England.

On the 11th, however, a decided change took place in all the western countries. In our Islands the conditions were affected by a large cyclonic system, the centre of which appeared off the north of Scotland, the wind backing first of all to the South-Westward and afterwards veering to North-West and increasing greatly in force, especially in the north of Scotland, where a strong gale prevailed between the 12th and 13th. Rain fell in all districts, the amount being slight in the east and south, but large at some of our western and northern stations. Over the west and south of France, and some parts of northern Italy the weather was influenced by a shallow depression which appeared over the Bay of Biscay on the morning of the 11th, and which afterwards moved north-eastwards, its progress being attended by thunderstorms and exceedingly heavy falls of rain, the amount measured on the morning of the 12th being over 2 ins. in many places, more than 3 ins. at Marseilles, and as much as 5·1 ins. at Cape Camarat.

Towards the close of the week the cyclonic system in the north moved away northwards across Scandinavia, and a large anticyclone again spread over western Europe, the conditions being very similar to those observed at the commencement of the period.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 242.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 16·5 | ? | 23 | ? | BRIGHTON | 47·7 | +17·9 | 63 | +24 |
| STRATHPEFFER SPA | 21·6 | - 1·6 | 30 | - 1 | WORTHING | 54·0 | ? | 71 | ? |
| EDINBURGH | 22·2 | + 2·5 | 30 | + 3 | BOGNOR | 54·2* | ? | 71* | ? |
| MORPETH | 26·0 | ? | 35 | ? | EASTBOURNE | 52·0 | +21·3 | 68 | +28 |
| NEWCASTLE-ON-TYNE | 19·8 | ? | 26 | ? | VENTNOR HOSPITAL | 47·6 | ? | 63 | ? |
| OSWALDKIRK (Yorkshire) | 25·0 | + 3·0 | 33 | + 5 | SOUTHPORT | 38·3 | ? | 51 | ? |
| LOWESTOFT | 44·9 | ? | 60 | ? | COLWYN BAY | 42·5 | ? | 57 | ? |
| HOLLESLEY BAY | 49·6 | ? | 66 | ? | RHYL | 37·0* | ? | 49* | ? |
| SHEFFIELD | 25·3 | ? | 47 | ? | ABERDOVEY | 43·1 | ? | 57* | ? |
| WORKSOP | 33·8 | +11·3 | 45 | +17 | TENBY | 38·1 | +10·1 | 51 | +15 |
| THURCASTON (Leicestershire) | 44·1 | +22·4 | 59 | +31 | NEWQUAY | 38·8 | +10·3 | 51 | +14 |
| MARGATE | 42·1 | +16·1 | 55 | +21 | TORQUAY | 42·8 | +14·6 | 56 | +20 |
| WESTBOURNE (Emsworth) | 51·5* | +22·7 | 68* | +31 | GUERNSEY | 42·8* | +12·8 | 56* | +18 |
| WATERGATE (Emsworth) | 48·7 | ? | 64 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| DATE OF REPORT. | NAME OF STATIONS. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week ending Aug. 19th, 1899 | Cranley | 86 | 53 | 80·0 | 55·8 | 67·2 | + 5·5 | 176 | 0 | 0 | — | ? | — | — | — | — |
| ,, ,, ,, ,, ,, | Shaftesbury | 84 | 51 | 76·9 | 53·8 | 64·7 | + 5·1 | 159 | 0 | — | — | — | — | — | — | — |
| ,, ,, ,, ,, ,, | Clifton | 83 | 57 | 78·0 | 59·1 | 68·0 | + 7·9 | 182 | 0 | 0 | — | - 0·78 | — | — | — | — |
| ,, ,, ,, 26th, ,, | Clifton | 88 | 56 | 82·4 | 59·0 | 70·0 | +10·6 | 196 | 0 | 0 | — | - 0·72 | — | — | — | — |
| ,, ,, Sept. 2nd, ,, | Churchstoke | 75 | 49 | 69·4 | 51·5 | 59·9 | + 3·7 | 125 | 0 | 4 | 0·98 | +0·39 | 50·5 | +14·4 | 53 | +15 |
| ,, ,, ,, ,, ,, | Clifton | 74 | 56 | 68·8 | 58·4 | 63·3 | + 4·9 | 149 | 0 | 7 | 1·83 | +1·13 | — | — | — | — |
| ,, ,, ,, ,, ,, | Colwyn Bay | | | | | | | | | | | | 9·3 | ? | 10 | ? |

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 42.] *Third Series.* WEEK ENDING SATURDAY, OCTOBER 21ST, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 248.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 76 | 29 | 57·9 | 45·0 | 51·4 | 6 above | 66 | +31 | 0 | − 8 | 2144 | +327 | 627 | − 16 |
| | 1. SCOTLAND, EAST | 69 | 25 | 58·6 | 40·7 | 49·4 | 4 above | 57 | +17 | 4 | − 5 | 2355 | +160 | 682 | + 10 |
| | 2. ENGLAND, N.E. | 69 | 27 | 57·0 | 39·9 | 48·2 | 1 above | 52 | + 7 | 6 | + 2 | 2654 | +279 | 463 | − 93 |
| | 3. ENGLAND, EAST | 68 | 27 | 58·5 | 38·0 | 48·0 | 0 (average) | 59 | + 6 | 11 | + 6 | 3086 | +345 | 443 | −183 |
| | 4. MIDLAND COUNTIES | 67 | 26 | 56·6 | 33·6 | 44·8 | 2 below | 55 | + 7 | 24 | +16 | 3070* | +348 | 523 | −112 |
| | 5. ENGLAND, SOUTH | 66 | 29 | 58·8 | 42·3 | 50·3 | 1 above | 58 | − 2 | 0 | − 4 | 3450 | +473 | 301 | −183 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 63 | 23 | 57·3 | 42·2 | 49·5 | 3 above | 53 | + 8 | 0 | − 6 | 2499 | +194 | 417 | − 56 |
| | 7. ENGLAND, N.W. | 71 | 27 | 60·2 | 40·3 | 50·0 | 2 above | 63 | +14 | 5 | + 2 | 2874 | +349 | 320 | −145* |
| | 8. ENGLAND, S.W. | 68 | 32 | 59·3 | 45·1 | 52·0 | 2 above | 70 | +12 | 0 | − 2 | 3318 | +535 | 243 | −122 |
| | 9. IRELAND, NORTH | 66 | 29 | 58·9 | 44·6 | 51·6 | 4 above | 67 | +20 | 0 | − 4 | 2720 | +295 | 325 | − 77 |
| | 10. IRELAND, SOUTH | 66 | 31 | 59·7 | 45·4 | 52·3 | 4 above | 72 | +18 | 0 | − 4 | 3161 | +419 | 250 | − 57 |
| | —CHANNEL ISLANDS | 71 | 40 | 61·7 | 49·8 | 55·6 | 3 above | 95 | +17 | 0 | 0 | 3927 | +767 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 248.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 1 | 1 | 12 less | 179 | −13 | 38·3 | + 0·7 | 22 | + 5 | 32 | + 9 | 1154 | +154 | 29 | + 4 |
| | 1. SCOTLAND, EAST | 0 | — | 7 less | 159 | + 2 | 25·4 | + 0·4 | 28 | + 9 | 40 | +13 | 1250 | + 82 | 32 | + 2 |
| | 2. ENGLAND, N.E. | 0 | — | 6 less | 139 | − 8 | 19·5 | − 1·1 | 29 | +11 | 41 | +17 | 1247 | +111 | 33 | + 3 |
| | 3. ENGLAND, EAST | 0 | — | 6 less | 126 | −17 | 16·8 | − 3·7 | 53 | +24 | 73 | +35 | 1736 | +291 | 44 | + 8 |
| | 4. MIDLAND COUNTIES | 0 | — | 7 less | 123 | −17 | 20·1 | − 2·2 | 35 | +15 | 48 | +20 | 1526 | +323 | 41 | + 8 |
| | 5. ENGLAND, SOUTH | 0 | — | 8 less | 108 | −27 | 17·5 | − 5·0 | 52 | +26 | 71 | +36 | 1849 | +369 | 48 | +10 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 1 | less than ½ | 12 less | 173 | + 9 | 37·7 | − 1·0 | 22 | + 2 | 31 | + 3 | 1276 | + 38 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 0 | — | 10 less | 152 | 0 | 28·1 | + 1·0 | 44 | +25 | 61 | +35 | 1499 | +259 | 39 | + 7 |
| | 8. ENGLAND, S.W. | 1 | less than ½ | 11 less | 136 | −17 | 28·6 | − 2·0 | 40 | +15 | 55 | +22 | 1782 | +280 | 47 | + 7 |
| | 9. IRELAND, NORTH | 1 | less than ½ | 9 less | 179 | + 1 | 28·4 | − 0·8 | 34 | +13 | 48 | +20 | 1310 | +171 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 2 | 2 | 7 less | 148 | −12 | 30·7 | + 0·4 | 34 | +10 | 47 | +15 | 1489 | +194 | 39 | + 5 |
| | — CHANNEL ISLANDS | 2 | less than ½ | 10 less | 130 | −31 | 20·2 | − 4·8 | 50 | +24 | 68 | +34 | 1966 | +301 | 54 | + 8 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was very fine and bright generally, but much mist or fog prevailed at night and in the early morning at most of the inland stations.

*Temperature* varied greatly in different localities. In the Midland Counties it was 2° below the mean, and only just equal to it in England E., but in all other districts it was above the normal, the excess amounting to 4° over Ireland and in Scotland E., and to as much as 6° in Scotland N. The highest of the maxima were recorded on the 18th in most parts of England and Ireland, and on the 19th in Scotland, and ranged from 76° in Scotland N. (at Lairg) and 71° in England N.W. and the Channel Islands, to 63° in Scotland W. The lowest of the minima were registered (as a rule) on the 15th, and varied from 23° in Scotland W, 25° in Scotland E., and 26° in the Midland Counties, to 32° in England S.W., and to 40° in the Channel Islands. The range during the week was very large generally, and at Lairg amounted to as many as 47°.

*Rainfall.*—Scarcely any rain fell over the United Kingdom as a whole, but some slight amounts were experienced at some of the south-western stations during the earlier half of the week, and a little fell in the extreme north later on. In many cases measurable amounts of water were deposited in the gauge by the wet fogs.

*Bright Sunshine* was again much above the mean, the percentage of the possible duration ranging from 73 in England E., 71 in England S., and 68 in the Channel Islands, to 41 in England N.E., 32 in Scotland N., and 31 in Scotland W. The highest percentage at any individual station was 83, which was recorded both at Hollesley Bay and Felixstowe.

*Barometer and Wind.*—During the whole of this period the distribution of pressure was anticyclonic, the high pressure system receding eastwards during the early days of the week, and afterwards advancing westwards again. Easterly and North-Easterly winds were most general in the south (and blew strongly at the commencement of the period), and South-Easterly to Southerly and South-Westerly winds, light or moderate in force, in the west and north.

207 | 90 Wy. & S., Ltd.
913 | 70 10 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 247 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 59 | 39 | 54·0 | 46·0 | 49·9 | + 4·6 | 55 | 0 | 0 | — | - 1·00 | * | * | * | * |
| | Stornoway | 62 | 35 | 56·3 | 44·0 | 50·0 | + 5·0 | 56 | 0 | 2 | 0·05 | - 1·10 | 11·5 | - 7·8 | 17 | -10 |
| | Wick | 64 | 37 | 57·7 | 46·3 | 51·8 | + 6·7 | 69 | 0 | 0 | — | - 0·70 | * | * | * | * |
| | Lairg (S) | 76 | 29 | 60·1 | 42·4 | 52·0 | + 8·2 | 70 | 0 | 2 | 0·04 | - 0·84 | * | * | * | * |
| | Glencarron (S) | 67 | 30 | 59·0 | 44·4 | 51·5 | + 6·8 | 67 | 0 | 1 | 0·05 | - 1·97 | * | * | * | * |
| | Fort Augustus (S) | 67 | 30 | 60·2 | 45·9 | 52·8 | + 6·9 | 76 | 0 | 0 | — | - 0·93 | 26·2 | +13·2 | 37 | +29 |
| | Fort William (S) | 62 | 32 | 58·0 | 46·3 | 52·0 | + 5·3 | 70 | 0 | 1 | 0·22 | - 1·52 | 27·9 | +10·1 | 40 | +16 |
| 1. SCOTLAND E. | Nairn | 69 | 29 | 62·0 | 41·9 | 51·6 | + 6·4 | 68 | 0 | 0 | — | - 0·58 | * | * | * | * |
| | Aberdeen | 65 | 34 | 57·0 | 43·6 | 50·1 | + 4·0 | 57 | 0 | 0 | — | - 0·69 | 27·1 | + 5·1 | 39 | + 8 |
| | Braemar (S) | 64 | 25 | 55·8 | 41·2 | 48·3 | + 5·8 | 47 | 2 | 0 | — | - 0·90 | 29·7† | +13·5† | 42† | +19† |
| | Ochtertyre (S) | 66 | 34 | 58·4 | 40·9 | 49·4 | + 3·7 | 56 | 3 | 0 | 0·02‡ | - 0·92 | * | * | * | * |
| | Leith | 65 | 29 | 60·0 | 37·3 | 48·3 | + 1·1 | 64 | 13 | 0 | — | - 0·45 | * | * | * | * |
| | Marchmont (S) | 66 | 31 | 58·6 | 39·3 | 48·7 | + 3·8 | 58 | 8 | 0 | — | - 0·78 | 32·3 | +12·7 | 46 | +19 |
| 2. ENGLAND, N.E. | Alnwick Castle | 69 | 27 | 58·7 | 39·9 | 49·0 | + 2·6 | 58 | 6 | 0 | — | - 0·70 | * | * | * | * |
| | Durham | 62 | 29 | 56·9 | 35·8 | 46·0 | 0·0 | 54 | 17 | 0 | — | - 0·68 | 33·8 | +13·8 | 48 | +21 |
| | Shields | 63 | 34 | 57·0 | 38·3 | 47·4 | + 0·3 | 53 | 10 | 0 | — | - 0·58 | * | * | * | * |
| | Scarborough (M) | 62 | 38 | 57·2 | 42·2 | 49·5 | + 1·8 | 53 | 0 | 0 | 0·02‡ | - 0·71 | | | | |
| | Spurn Head | 60 | 40 | 55·4 | 43·3 | 49·2 | + 0·4 | 50 | 0 | 0 | — | - 0·53 | * | * | * | * |
| 3. ENGLAND, E. | Hillington (M) | 65 | 32 | 59·9 | 36·7 | 48·0 | + 0·4 | 64 | 15 | 0 | 0·08‡ | - 0·54 | 50·4 | +28·4 | 70 | +40 |
| | Yarmouth | 56 | 40 | 55·1 | 45·6 | 50·2 | + 1·3 | 57 | 0 | 2 | — | - 0·70 | * | * | * | * |
| | Geldeston | 63 | 27 | 58·8 | 34·1 | 46·1 | - 2·3 | 62 | 22 | 0 | 0·04‡ | - 0·61 | 53·8 | +28·5 | 75 | +42 |
| | Cambridge | 68 | 29 | 60·0 | 32·7 | 45·9 | - 2·0 | 66 | 26 | 0 | 0·02‡ | - 0·53 | 41·3 | +17·2 | 57 | +25 |
| | Felixstowe | 62 | 39 | 58·6 | 44·2 | 51·2 | + 2·5 | 64 | 0 | 0 | — | ? | 59·7 | ? | 83 | ? |
| | Rothamsted | 64 | 31 | 58·5 | 34·9 | 46·4 | - 0·5 | 61 | 20 | 0 | 0·06‡ | - 0·64 | 48·1 | +23·2 | 67 | +34 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 65 | 26 | 56·0 | 32·0 | 43·6 | - 3·2 | 53 | 28 | 0 | 0·03‡ | - 0·59 | * | * | * | * |
| | Loughborough | 67 | 26 | 58·3 | 30·1 | 43·8 | - 3·7 | 63 | 33 | 0 | 0·02‡ | - 0·62 | * | * | * | * |
| | Stamford (Ketton) | 63 | 29 | 56·1 | 34·3 | 44·9 | - 2·8 | 53 | 22 | 0 | 0·03‡ | - 0·64 | * | * | * | * |
| | Cheadle (M) | 61 | 33 | 55·8 | 38·5 | 46·9 | + 0·6 | 49 | 10 | 0 | — | - 0·80 | * | * | * | * |
| | Shirley (near Solihull) | 64 | 27 | 5·86 | 31·6 | 44·7 | - 1·9 | 63 | 29 | 0 | 0·02‡ | ? | * | * | * | * |
| | Churchstoke (M) | 64 | 28 | 57·8 | 34·7 | 45·9 | - 0·9 | 58 | 20 | 0 | — | - 0·80 | 40·4 | +19·4 | 56 | +28 |
| | Hereford (Belmont) (M) | 64 | 26 | 54·5 | 31·2 | 42·5 | - 4·8 | 49 | 30 | 0 | 0·05‡ | - 0·56 | * | * | * | * |
| | Cirencester | 62 | 30 | 55·9 | 36·1 | 45·7 | - 0·9 | 51 | 17 | 0 | — | - 0·73 | 41·6 | +18·8 | 58 | +27 |
| | Oxford | 65 | 30 | 56·4 | 33·9 | 44·8 | - 3·2 | 54 | 23 | 0 | — | - 0·60 | 32·0 | + 8·8 | 44 | - 3 |
| 5. ENGLAND, S. | London | 66 | 37 | 58·4 | 39·9 | 48·9 | + 0·1 | 57 | 6 | 0 | — | - 0·64 | 30·8† | +12·9† | 43† | +19† |
| | Cranley (M) | 65 | 29 | 59·4 | 35·6 | 47·1 | - 1·3 | 63 | 18 | 0 | — | ? | * | * | * | * |
| | Dungeness | 60 | 33 | 57·9 | 45·4 | 51·5 | + 0·8 | 67 | 0 | 0 | 0·01‡ | - 0·77 | * | * | * | * |
| | Hastings (St. Leonards) | 62 | 43 | 57·8 | 45·9 | 51·7 | + 1·6 | 68 | 0 | 0 | 0·01‡ | - 0·89 | 59·0 | +31·4 | 81 | +44 |
| | Southampton | 65 | 34 | 61·5 | 40·0 | 50·4 | + 0·6 | 67 | 6 | 0 | — | - 0·80 | 49·1 | +13·3 | 67 | +32 |
| | Portland Bill | 60 | 45 | 58·3 | 48·3 | 53·2 | + 2·7 | 78 | 0 | 0 | — | ? | * | * | * | * |
| | Shaftesbury (M) | 63 | 35 | 58·6 | 40·9 | 49·5 | + 2·7 | 57 | 3 | 0 | — | - 0·87 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 63 | 35 | 58·1 | 47·5 | 52·6 | + 5·3 | 74 | 0 | 1 | 0·03 | - 1·69 | * | * | * | * |
| | Glasgow | 61 | 32 | 56·5 | 45·3 | 50·7 | + 4·5 | 61 | 0 | 0 | — | - 0·87 | 18·6 | + 2·9 | 27 | + 5 |
| | Glenlee (S) | 61 | 23 | 57·1 | 35·0 | 45·7 | - 0·4 | 55 | 20 | 2 | 0·04 | - 1·28 | * | * | * | * |
| | Douglas (Isle of Man) | 60 | 32 | 57·4 | 41·1 | 49·0 | + 1·2 | 53 | 3 | 0 | — | - 1·02 | 24·3 | + 0·3 | 34 | + 1 |
| 7. ENGLAND, N.W. | Newton Reigny | 68 | 27 | 61·1 | 34·9 | 47·6 | + 1·8 | 69 | 20 | 0 | — | ? | 45·3 | ? | 64 | ? |
| | Stonyhurst | 61 | 33 | 56·9 | 39·4 | 47·9 | + 1·3 | 52 | 7 | 0 | — | - 1·18 | 43·0 | +22·9 | 61 | + 34 |
| | Blackpool (M) | 65 | 33 | 60·9 | 39·7 | 50·0 | + 1·7 | 66 | 6 | 0 | — | - 0·94 | 38·6 | +18·6 | 54 | + 27 |
| | Manchester (Prestwich) | 65 | 32 | 60·8 | 38·3 | 49·2 | + 2·0 | 66 | 10 | 0 | — | - 0·90 | 33·4 | ? | 47 | ? |
| | Liverpool Obsy. (Bidston) | 62 | 33 | 57·0 | 40·0 | 48·3 | - 0·2 | 53 | 6 | 0 | — | - 0·80 | 37·5 | ? | 52 | ? |
| | Llandudno (M) | 71 | 39 | 63·9 | 45·8 | 54·6 | + 4·9 | 88 | 0 | 0 | — | - 0·90 | 50·8 | +32·6 | 71 | + 45 |
| | Holyhead | 66 | 38 | 60·7 | 44·0 | 52·1 | + 2·0 | 71 | 0 | 1 | 0·01 | - 0·99 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 68 | 33 | 62·9 | 39·4 | 50·8 | + 3·8 | 73 | 7 | 0 | — | - 1·27 | * | * | * | * |
| | Pembroke | 59 | 45 | 56·9 | 47·3 | 52·0 | + 1·1 | 70 | 0 | 1 | 0·02 | - 0·92 | 40·8 | +17·1 | 57 | +24 |
| | Clifton | 64 | 35 | 57·2 | 39·2 | 47·9 | - 0·7 | 53 | 8 | 0 | — | - 0·83 | * | * | * | * |
| | Arlington (N. Devon) | 63 | 41 | 59·9 | 45·9 | 52·7 | + 4·4 | 75 | 0 | 1 | 0·01 | - 1·43 | * | * | * | * |
| | Cullompton (M) | 68 | 32 | 60·5 | 39·0 | 49·4 | - 3·0 | 64 | 8 | 0 | 0·01‡ | - 0·89 | 36·3 | +14·7 | 50 | +21 |
| | Falmouth | 61 | 52 | 58·4 | 53·8 | 56·0 | + 5·1 | 98 | 0 | 2 | 0·09 | - 1·15 | 43·0 | +15·8 | 59 | +23 |
| | Plymouth | 63 | 45 | 59·4 | 51·2 | 55·2 | + 4·6 | 92 | 0 | 1 | 0·01 | - 0·87 | 43·7 | +19·1 | 60 | +27 |
| 9. IRELAND, N. | Malin Head | 64 | 38 | 59·7 | 48·3 | 53·8 | + 5·2 | 83 | 0 | 1 | 0·01 | ? | * | * | * | * |
| | Londonderry | 66 | 34 | 59·2 | 45·2 | 52·0 | + 4·8 | 70 | 0 | 0 | — | - 0·93 | * | * | * | * |
| | Edenfel (Omagh) | 63 | 30 | 58·7 | 40·0 | 49·1 | + 3·7 | 58 | 6 | 1 | 0·01 | - 0·84 | * | * | * | * |
| | Blacksod | 63 | 44 | 58·7 | 48·7 | 53·9 | + 4·1 | 83 | 0 | 1 | 0·02 | ? | * | * | * | * |
| | Markree Castle | 66 | 29 | 59·9 | 42·4 | 50·9 | + 4·1 | 62 | 0 | 1 | 0·01 | - 1·02 | 34·7 | +14·0 | 49 | +21 |
| | Armagh | 66 | 30 | 59·4 | 41·6 | 50·2 | + 3·8 | 59 | 1 | 0 | 0·02‡ | - 0·68 | 33·5 | +12·5 | 47 | +19 |
| | Donaghadee | 60 | 40 | 56·7 | 46·0 | 51·2 | + 3·3 | 64 | 0 | 1 | 0·03 | - 0·75 | * | * | * | * |
| | Farnham (Cavan) | | | | | | | | | | | | | | | |
| 10. IRELAND, S. | Dublin | 65 | 35 | 58·6 | 44·8 | 51·5 | + 2·7 | 67 | 0 | 1 | 0·26 | - 0·44 | 37·2 | +12·2 | 52 | +17 |
| | Parsonstown | 66 | 31 | 60·7 | 42·7 | 51·4 | + 4·5 | 66 | 0 | 1 | 0·01 | - 0·69 | 33·9 | +11·8 | 47 | +17 |
| | Kilkenny | 65 | 32 | 59·4 | 42·3 | 50·6 | + 2·8 | 60 | 0 | 2 | 0·15 | - 0·59 | * | * | * | * |
| | Roche's Point | 60 | 40 | 58·1 | 50·4 | 54·1 | + 3·7 | 85 | 0 | 2 | 0·25 | - 0·72 | * | * | * | * |
| | Valencia | 65 | 38 | 60·7 | 47·6 | 54·0 | + 3·1 | 84 | 0 | 3 | 0·66 | - 0·64 | 30·2 | + 6·4 | 42 | +10 |
| | Killarney | | | | | | | | | | | | * | * | * | * |
| | Foynes | 66 | 35 | 60·7 | 44·4 | 52·3 | + 4·1 | 72 | 0 | 1 | 0·05 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 62 | 45 | 60·0 | 51·6 | 55·7 | + 3·0 | 96 | 0 | 2 | 0·04 | - 0·80 | 44·6 | ? | 61 | ? |
| | Jersey | 71 | 40 | 63·4 | 47·9 | 55·4 | + 2·6 | 94 | 0 | 1 | 0·01 | - 1·09 | 52·9 | +23·6 | 74 | +35 |

Stations marked (M) are in connection with the Royal Meteorological Society, and those marked (S) with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

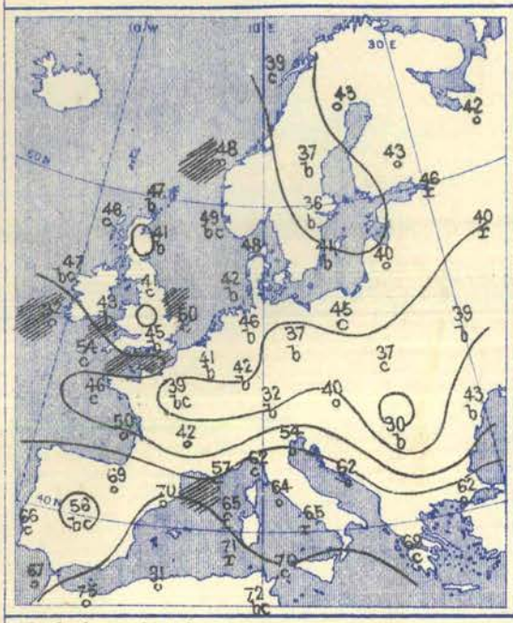
‡ Wet fog or dew.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 15th October.

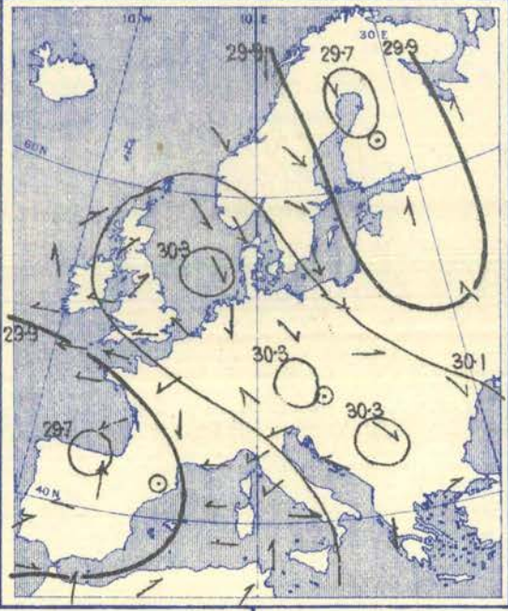
### Temperature and Weather.

8 a.m.

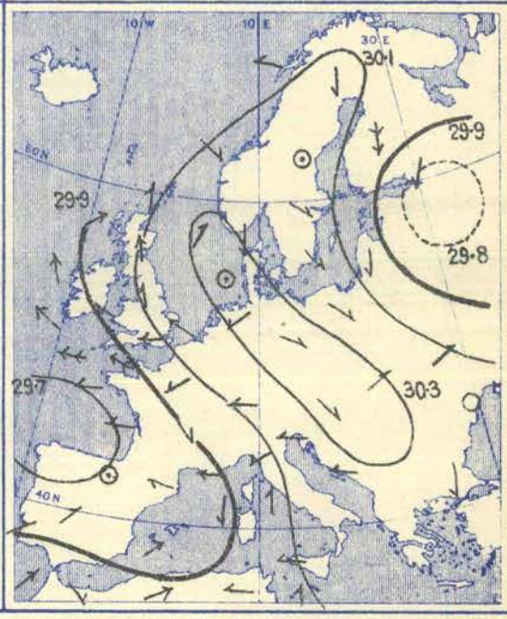


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair or fine over north-western and central Europe as a whole; dull over France and the southern countries, with rain at Lorient, Nice and Naples; dull also in many parts of Scandinavia and over northern and central Russia, with rain at St. Petersburg and Moscow. Heavy rain falling later over Spain, northern Italy and the south of France (as much as 2·5 ins. at San Fernando and 1·7 ins. at Cette) and smaller quantities in the west of Norway and many parts of Russia.

*Temperature* risen over western Europe generally, but fallen elsewhere. Morning readings highest, 81° at Algiers, 75° at Nemours and 72° at Sfax; above 65° at the Mediterranean and Spanish coast stations. Lowest, (1) 35° at Hermanstadt, 32° at Munich, and 33° at Münster; (2) 34° at Karlstad and 36° at Stockholm; (3) 34° at Loughborough. Daily maxima below 55° in many parts of the United Kingdom; thermometer exceeding 65° in the west of France; exceeding 70° over Spain and southern Italy, and reaching 86° at Palermo. Frost occurring over the central parts of Great Britain at night.

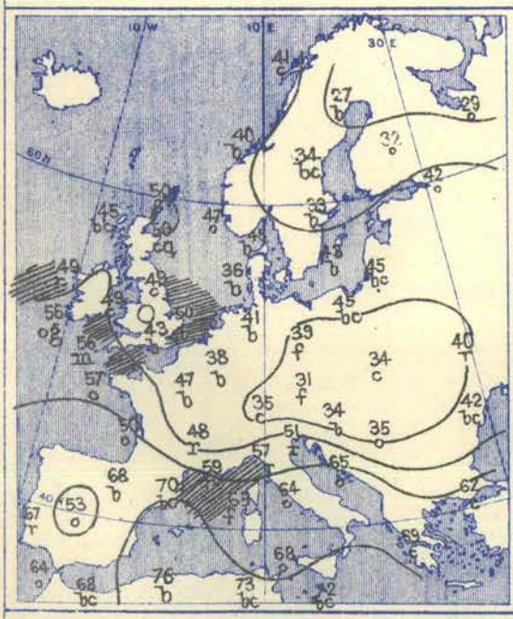
*Wind* Easterly or South-Easterly over England, Ireland, the Netherlands and the north and west of France; strong in force over the English Channel and the south-east of Ireland; light from the South-Westward or Westward in Scotland; North-Westerly or Northerly over Finland, Scandinavia, Denmark, the Baltic and north Germany, with a gale at Wisby. Calm or variable in Austria and the southern parts of Germany and Italy; light from the North-Eastward over central France and northern Italy. Subsequently increasing to a gale from the Eastward in the Channel; no important change occurring elsewhere.

*Barometer* highest, 30·2 ins. to 30·3 ins. in an anticyclone stretching from north-west to south-east across all the more central parts of Europe, including the eastern parts of England. Lowest, 29·7 ins. and less in two depressions—one lying over Lapland and the other over the southern part of the Bay of Biscay. Former disturbance subsequently moving south eastwards to the neighbourhood of St. Petersburg; depression over Bay of Biscay spreading northwards and barometer falling in nearly all parts of western Europe.

## Monday, 16th October.

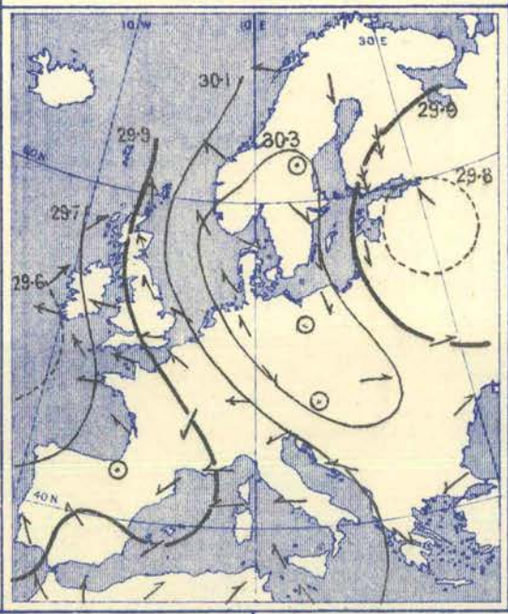
### Temperature and Weather.

8 a.m.

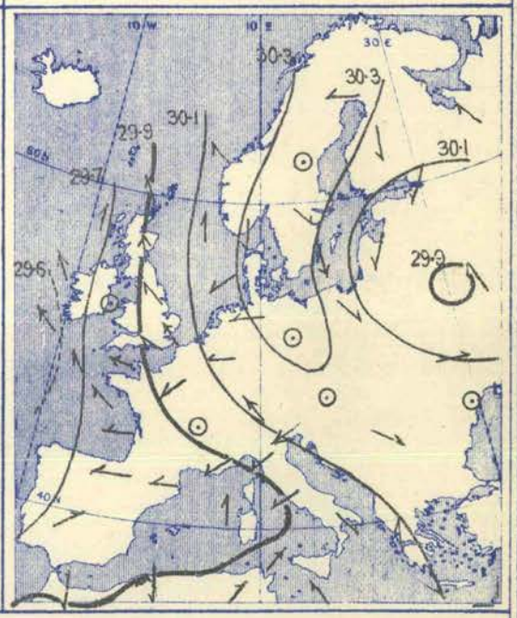


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair or fine over the greater part of western, northern and central Europe, but dull and misty on our own south-western coasts, and foggy at many of the German stations. Dull over southern Europe generally, with rain over the south of France, northern Italy and the adjacent parts of Austria. A little rain falling later in the west of our Islands, and larger quantities in the south of France and northern and central Italy—as much as 3·5 ins. at Rome.

*Temperature* risen over our Islands and France, fallen in most other countries. Morning readings highest, 76° at Algiers, 73° at La Calle, and 72° at Malta; above 65° at the Mediterranean and Spanish coast stations generally. Lowest, (1) 27° at Haparanda, 29° at Uleaborg and 32° at Kuopio; (2) 31° at Prague and 33° at Breslau; (3) 34° at Loughborough and 37° at Nairn. Rising during day to 60°, or slightly above it, at several of the English and Irish stations; exceeding 65° in the west and south of France, and exceeding 70° over Spain and southern Italy.

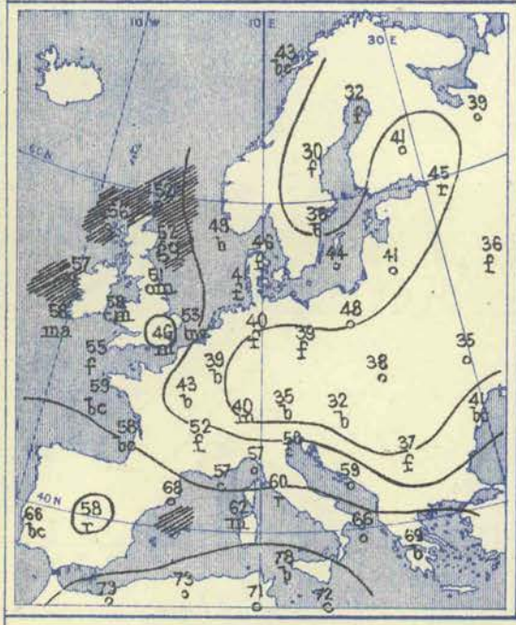
*Wind* South-Easterly or Easterly over western and southern Europe generally, and strong in force on nearly all parts of our own coasts. Northerly or North-Westerly over Sweden and northern Russia, with a gale at Kuopio and Helsingfors; Westerly or South-Westerly over the south of Russia; calm in Austria. Wind moderating later over our Islands generally, but direction remaining unchanged.

*Barometer* highest 30·3 ins. and upwards in an anticyclone lying over Denmark, Germany and the southern parts of Scandinavia. Lowest, 29·6 ins. and less in a depression off the south-west of Ireland, 29·8 ins., and less in another disturbance over western Russia. No important change occurring over western Europe during day, but Irish depression beginning to move away again over the Atlantic in evening.

## Tuesday, 17th October.

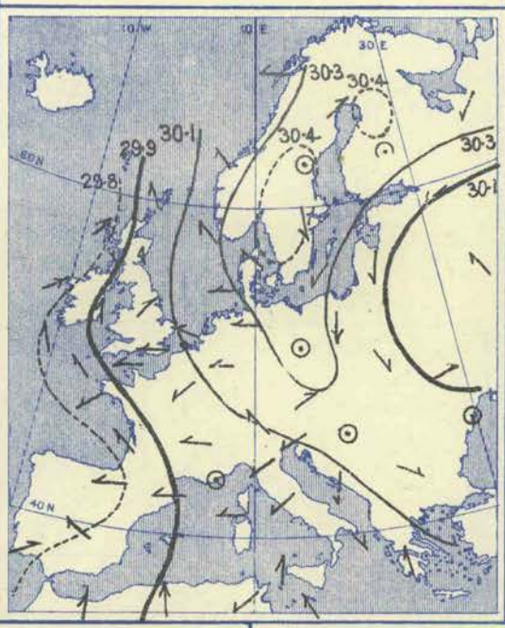
### Temperature and Weather.

8 a.m.

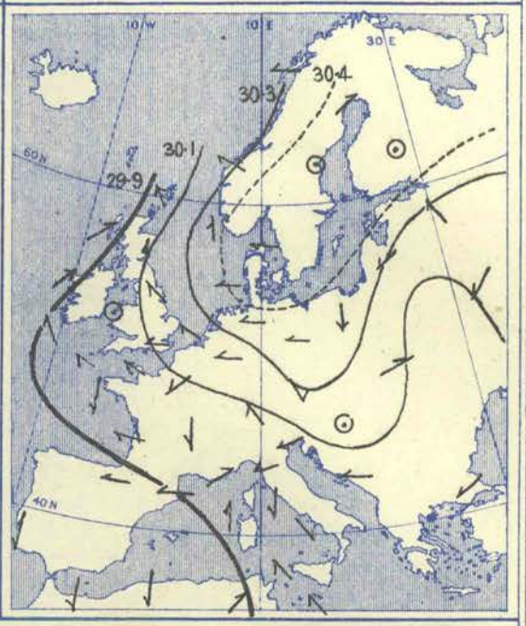


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over England and the western and central parts of the Continent generally, but with fog in places, the latter being very general over Denmark and north Germany. Cloudy or dull in the west and north of our Islands, and also over Russia and nearly the whole of southern Europe, with rain at Rome and Madrid. A little rain falling later in the south of Ireland, and also at some stations in the south of France. Thunderstorms occurring at Nemours and Algiers.

*Temperature* risen in our Islands and also over Norway, Denmark and northern Russia, fallen in most other localities. Morning readings highest, 78° at Palermo, 73° at Oran and Algiers, and 72° at Malta; above 65° at the Mediterranean and Adriatic stations generally. Lowest, (1) 27° at Hermanstadt, and 32° at Vienna, Prague and Buda Pesth; (2) 32° at Ulealborg and 34° at Haparanda. Rising during day to between 60° and 65° in many parts of the United Kingdom, and to 67° at Loughborough; exceeding 70° in the Channel Islands, the west and south of France, Spain and southern Italy, and reaching 88° at Palermo. Ground frost occurring over central England at night.

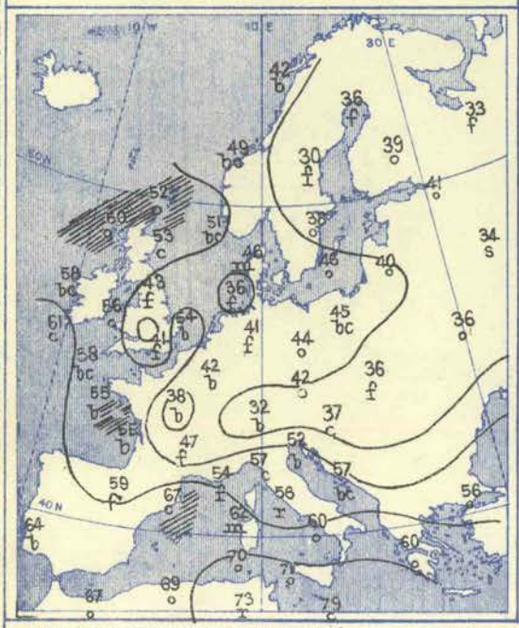
*Wind* light to moderate from the Eastward over the south-east of England, and also over France, the Netherlands, Denmark and western Germany; South-Easterly on our own western coasts; Southerly in the north of Scotland; South-Easterly or Easterly in the west of Norway. Calm or variable over Finland and the Gulf of Bothnia, light or moderate from the Northward over the Baltic and the south of Sweden. Calm in Austria and the extreme south of Russia; variable over Italy and the Adriatic. No important change occurring over western Europe during day.

*Barometer* highest, 30·4 ins. and upwards over the southern parts of Sweden; 30·1 ins. and upwards in an anticyclone covering the whole of northern, central and south-eastern Europe. Lowest, 29·8 ins. and less in a depression lying to the westward of our Islands, and also in another disturbance over Portugal and the north of Spain. Anticyclone subsequently spreading westwards, and barometer rising steadily in all parts of western Europe.

## Wednesday, 18th October.

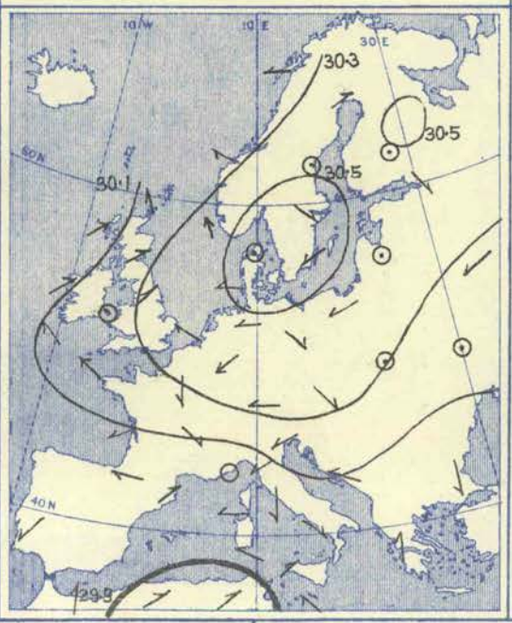
### Temperature and Weather.

8 a.m.

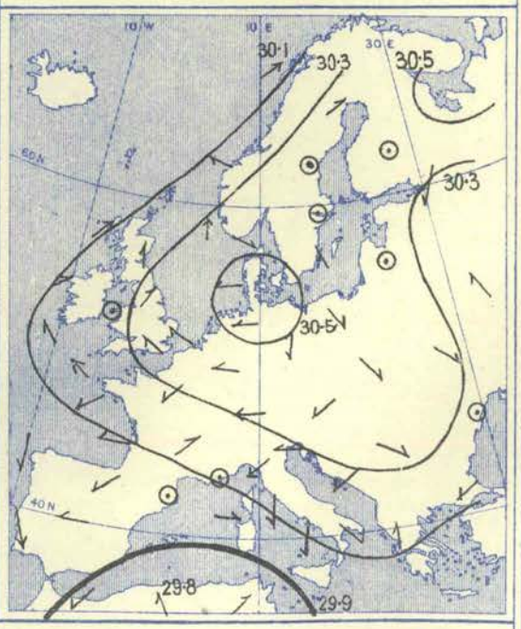


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over western Europe as a whole, but foggy at many of the English stations, as well as in Sweden, Denmark and north Germany; dull in the south of Ireland and also in the Shetlands and Hebrides. Cloudy or dull in most of the eastern and central countries, with rain at Rome and a thunderstorm at Bilbao. Heavy rain falling later at Bodö; no decided change occurring elsewhere, but lunar halos seen at Wick and Donaghadee. Thunderstorms occurring at Algiers.

*Temperature* fallen over England, France and the greater part of southern and eastern Europe, but risen elsewhere. Morning readings highest, 79° at Malta, 73° at La Calle, and 71° at Palermo and Tunis; above 60° at most of the Mediterranean and Spanish coast stations, as well as at Valencia (Ireland) and as high as 59° even at Nairn. Lowest, (1) 30° at Hernösand, and 31° at Karlstad; (2) 32° at Munich; (3) 34° at Oxford and 36° at Loughborough. Rising during day to 65° or slightly above it in many parts of the United Kingdom, and to 70° and upwards in the west of France, as well as over the Spanish Peninsula. Frost occurring over central England at night.

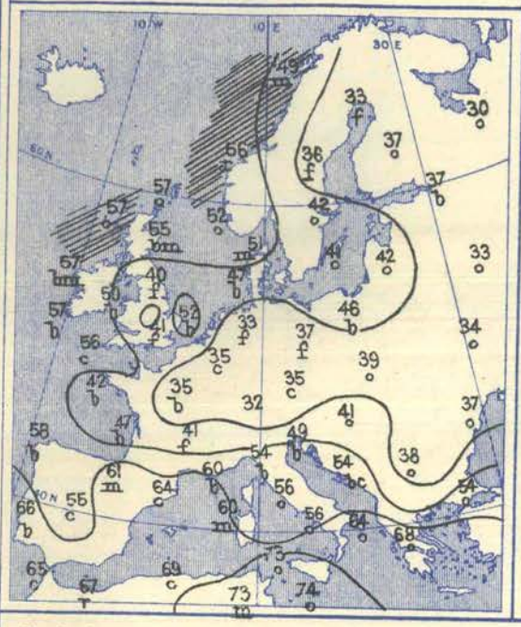
*Wind* light to moderate from the Eastward or North Eastward over the English Channel, France, the Netherlands, western Germany and northern Italy; moderate to fresh from the South-Eastward on our own western coasts; Southerly or South-Westerly in Scotland; and South-Easterly in the west of Norway. Light from the Northward or North-Eastward over Russia; variable over southern Italy. No important change occurring during day.

*Barometer* highest, 30·5 ins. and upwards over Denmark and the south of Sweden; 30·1 ins. and upwards in an anticyclone covering all but the southern parts of Europe. Lowest, 29·8 ins. and less in a shallow depression over Tunis. Anticyclone moving slowly southwards during day, and depression approaching the northern parts of the Norwegian coasts.

## Thursday, 19th October.

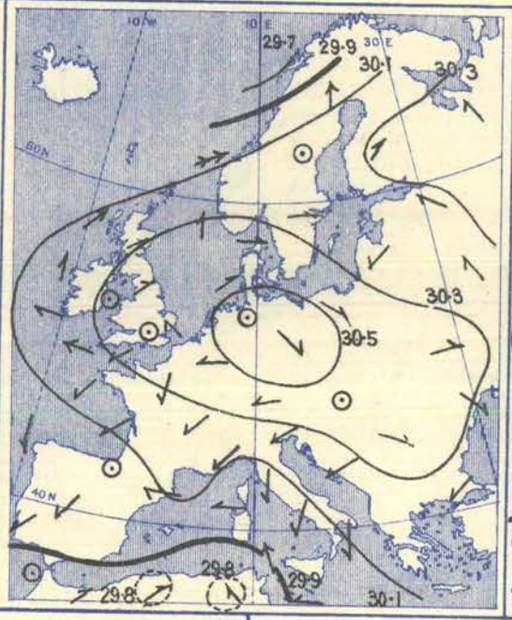
### Temperature and Weather.

8 a.m.

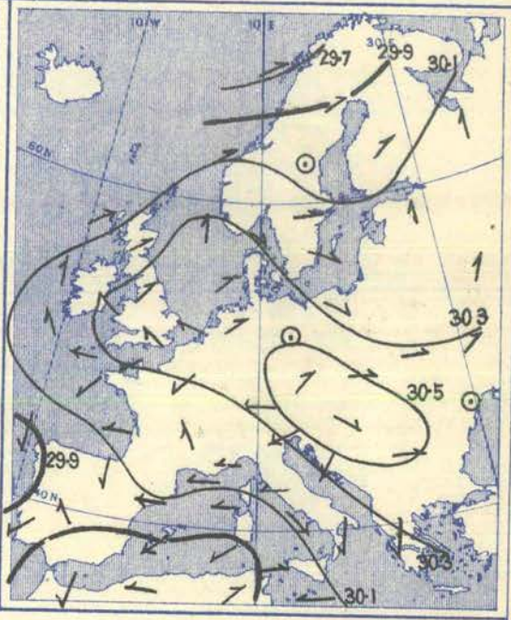


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over western and central Europe as a whole, but foggy over the eastern and central parts of England, as well as over the Netherlands, north Germany and at some of the Swedish stations. Dull in the Shetlands and Hebrides, and rainy over the northern parts of Scandinavia; dull in Greece and Italy. Heavy rain falling later at Bodö, and also at Palma and Cagliari.

*Temperature* risen in Scandinavia and Denmark, but fallen elsewhere. Morning readings highest, 74° at Malta, 73° at Palermo and Sfax, and 71° at Tunis; above 60° at the Mediterranean and Spanish coast stations generally. Lowest, (1) 29° at Kharkov, 30° at Archangel, and 32° at Breslau and Munich; (2) 30° at Oxford and 34° at Loughborough. Rising during day to between 60° and 65° in many parts of the United Kingdom, and to 69° at Nairn. Exceeding 65° also in the west and south of France, and exceeding 70° over the Spanish Peninsula and southern Italy. Ground frost occurring over central England at night.

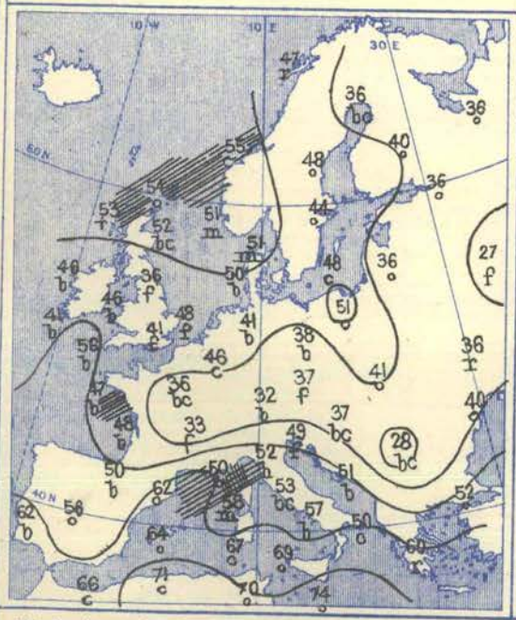
*Wind* light to fresh from the Eastward or North-Eastward over the English and Bristol Channels, France, Spain, and western Germany, and from the Northward in Italy. Southerly in Ireland, and South-Westerly in Scotland and the west of Norway, with a gale in the latter region. Light and variable over northern Russia; Westerly or North-Westerly over Denmark, the south of Sweden, the Baltic and eastern Germany. No important change occurring over western Europe during day, but gale on Norwegian coasts subsiding quickly.

*Barometer* highest, 30·5 ins. and upwards over Germany; 30·1 ins. and upwards in an anticyclone covering all but the extreme northern and southern parts of Europe. Lowest, 29·8 ins. and less in a depression lying off the north-west of Norway; 29·8 ins. and less in another and shallower system over Tunis. Slight fall of barometer taking place over western Europe during day, but general distribution of pressure remaining unchanged.

## Friday, 20th October.

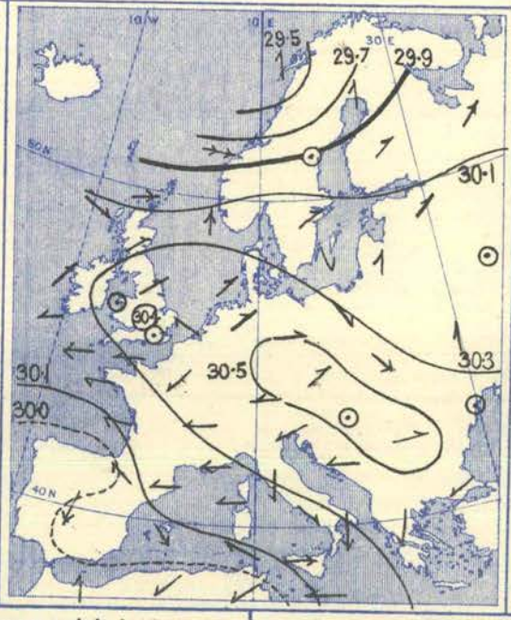
### Temperature and Weather.

8 a.m.

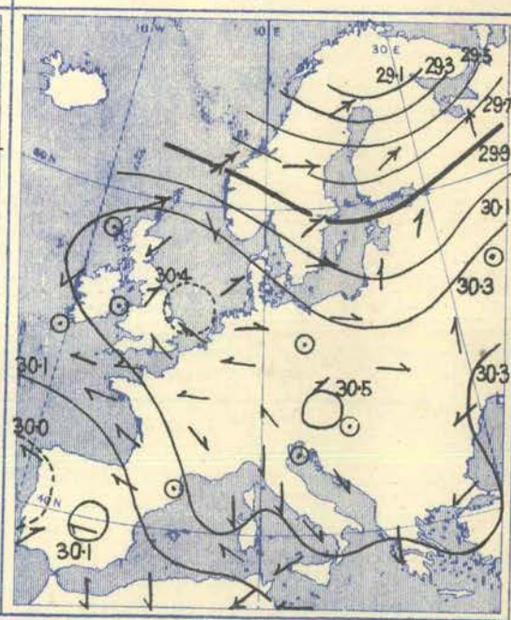


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over western, central, and southern Europe as a whole, but foggy over the eastern and central parts of England, as well as at one or two of the Continental stations. Dull in the extreme north of Scotland, and also over the greater part of Russia and Scandinavia; rain falling at Stornoway, Bodö, Kiev, and Nicolieff. Sky clearing temporarily over England later; no important change occurring elsewhere.

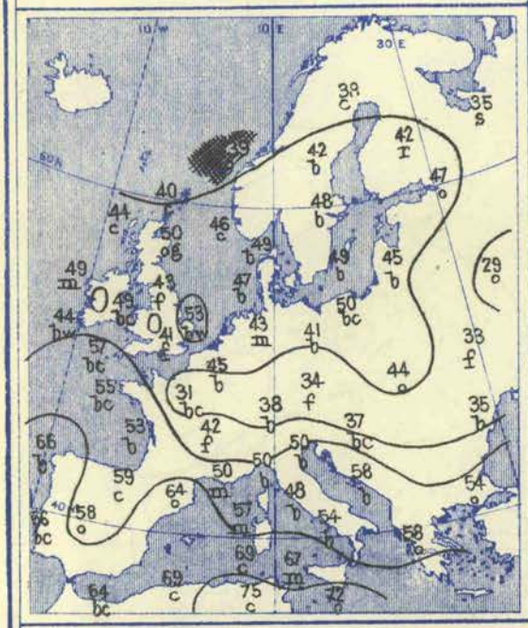
*Temperature* fallen in most parts of western and southern Europe, but risen elsewhere. Morning readings highest, 74° at Malta, 71° at Algiers, and 70° at Tunis; above 65° at most of the Mediterranean stations. Lowest, (1) 27° at Moscow, 28° at Hermanstadt, and 30° at Kharkov; (2) 32° at Oxford, 33° at Loughborough, and 34° at Leith. Rising during day to 60° and upwards in many parts of Great Britain, and to 65° at Aberdeen; exceeding 65° in the west of France, and exceeding 70° over the southern parts of France, Spain and Italy. Frost occurring over Great Britain at night.

*Wind* Easterly (South-East to North-East) over the south of our Islands, and also over France, Spain, western Germany, and northern Italy, and fresh in force on our own south-west coasts. South-Westerly or Westerly over the northern parts of our Islands and the Continent, and strong to a gale in force in the Shetlands and west of Norway; Westerly or North-Westerly over the Baltic and eastern Germany; calm or variable over Austria and the south of Russia; Northerly over Greece and southern Italy. No important change occurring over western Europe during day, but South-Westerly and Westerly gales setting in over Sweden.

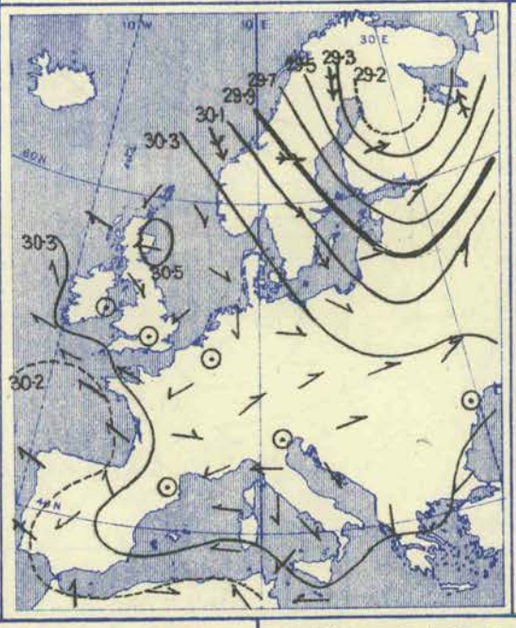
*Barometer* highest, 30·5 ins. and upwards over Austria and the southern parts of Germany; 30·2 ins. and upwards in an anticyclone embracing all but the northern and extreme south-western parts of Europe. Lowest, 29·5 ins. and less in a large and rather deep depression with its centre off the northern parts of the Norwegian coasts. Depression subsequently moving eastwards across the north of Scandinavia, and barometer rising briskly in Norway and the north of Scotland.

## Saturday, 21st October.

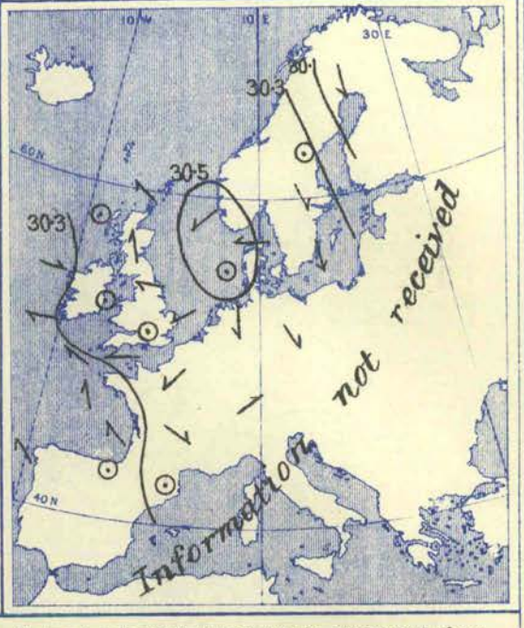
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.




*Weather* in morning fair or fine over Europe as a whole, but foggy in many parts of England, and also in central Ireland. Dull in the east of Scotland, the west of Norway, and many parts of Russia, with rain at Kuopio, and snow at Archangel. No important change occurring later.

*Temperature* risen in most parts of western and central Europe, but fallen several degrees in the north of Scotland, and to a less extent in Scandinavia and Denmark. Morning readings highest, 75° at La Calle and Sfax, and 72° at Tunis and Malta; above 65° at many of the Mediterranean and Spanish coast stations. Lowest, (1) 27° at Kharkov, and 29° at Moscow; (2) 31° at Paris, and 33° at Munich; (3) 34° at Oxford, and 37° at Loughborough. Rising during day to between 55° and 60° in many parts of the United Kingdom, and to 67° at Jersey, but remaining below 50° over central England, and only reaching 44° in London. Exceeding 65° in France, and reaching 79° at Biarritz, and 81° at Corunna.

*Wind* light to moderate from the Eastward or South-Eastward over the greater part of our Islands, France, and the Spanish Peninsula, but calm or variable in the south-east of England. Strong to a gale from the North-Westward over Finland and Scandinavia, and light or moderate from the same quarter in Denmark and north Germany; Southerly or South-Westerly over northern and central Russia, with a gale at Archangel. Variable or light from the South-Westward over Austria and south Germany; Northerly or North-Westerly in Italy. Wind moderating later in Scandinavia; no important change occurring elsewhere.

*Barometer* highest, 30·5 ins. and upwards in the north-east of Scotland; 30·3 ins. and upwards in an anticyclone embracing the greater part of western, central, and southern Europe. Lowest, 29·2 ins. and less in a large and deep depression with its centre over Lapland. Depression subsequently moving eastwards, and barometer rising briskly over Scandinavia.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟶⟶⟶ = a heavy gale ⟶⟶ = a gale; ⟶⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the commencement of the week the large anticyclone which had previously spread over western Europe from the Atlantic, moved away slowly to the eastward, while a well-marked depression advanced over the Bay of Biscay from Spain, and ultimately skirted our own south-western and western coasts in a north-north-westerly direction. The disturbance caused rain in the latter regions, an Easterly gale in the Channel, and strong South-Easterly winds in many other parts of our Islands. As it passed away the Continental anticyclone again extended westwards over all the more western countries, and for the remainder of the week the weather in our Islands was mostly fair and dry, with night frosts in all the more central districts, and with a good deal of fog over England, the wind being Easterly in the south, but Southerly or South-Westerly in the north.

Over northern Europe the weather on the 20th and 21st was influenced by a deep depression, the centre of which moved eastwards across the north of Scandinavia. The progress of this disturbance was marked by heavy falls of rain in several parts of Scandinavia and northern Russia, and by strong gales from South-West veering to North-West. Quite at the close of the week the depression was passing away, and the anticyclone was spreading northwards again over the whole of western Europe.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 248.

| STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 17·3 | ? | 25 | ? | BRIGHTON | 51·7 | +23·7 | 71 | +33 |
| STRATHPEFFER SPA | 27·9 | + 6·4 | 40 | +10 | WORTHING | 55·2 | ? | 76 | ? |
| EDINBURGH | 23·6 | + 4·7 | 34 | + 8 | BOGNOR | 55·9* | ? | 77* | ? |
| MORPETH | 34·0 | ? | 48 | ? | EASTBOURNE | 58·4 | +30·9 | 80 | +43 |
| NEWCASTLE-ON-TYNE | 20·8 | ? | 29 | ? | VENTNOR HOSPITAL | 43·9 | ? | 60 | ? |
| OSWALDKIRK (Yorkshire) | 27·9 | + 8·1 | 39 | +12 | SOUTHPORT | 40·4 | ? | 57 | ? |
| LOWESTOFT | 57·2 | ? | 79 | ? | COLWYN BAY | 54·5 | ? | 76 | ? |
| HOLLESLEY BAY | 59·8 | ? | 83 | ? | RHYL | 44·3* | ? | 62* | ? |
| SHEFFIELD | 30·0 | ? | 42 | ? | ABERDOVEY | 46·9* | ? | 65* | ? |
| WORKSOP | 31·5 | +11·7 | 44 | +18 | TENBY | 40·3 | +15·1 | 56 | +23 |
| THURCASTON (Leicestershire) | 32·7 | +12·7 | 45 | +18 | NEWQUAY | 45·2 | +19·0 | 62 | +27 |
| MARGATE | 50·7 | +26·5 | 69 | +37 | TORQUAY | 28·8 | + 3·5 | 39 | + 6 |
| WESTBOURNE (Emsworth) | 56·8* | +30·8 | 78* | +43 | GUERNSEY | 51·4* | +24·6 | 70* | +34 |
| WATERGATE (Emsworth) | 56·7 | ? | 78 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

WYMAN & SONS, LTD. LITH., 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 43.] *Third Series.* WEEK ENDING SATURDAY, OCTOBER 28TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 254.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH - | 64 | 29 | 53·3 | 41·1 | 47·0 | 3 above | 39 | + 9 | 3 | - 7 | 2183 | +336 | 630 | - 23 |
| | 1. SCOTLAND, EAST - | 59 | 29 | 54·3 | 37·8 | 45·8 | 2 above | 44 | +11 | 12 | 0 | 2399 | +171 | 694 | + 10 |
| | 2. ENGLAND, N.E. - | 60 | 33 | 54·9 | 42·3 | 48·4 | 3 above | 45 | + 8 | 0 | - 6 | 2699 | +287 | 463 | - 99 |
| | 3. ENGLAND, EAST - | 63 | 30 | 57·3 | 43·1 | 50·0 | 4 above | 56 | +11 | 0 | - 7 | 3142 | +356 | 443 | -190 |
| | 4. MIDLAND COUNTIES | 63 | 29 | 56·6 | 43·0 | 49·6 | 4 above | 53 | +12 | 0 | - 10 | 3123 | +359 | 523 | -122 |
| | 5. ENGLAND, SOUTH - | 64 | 35 | 60·0 | 47·4 | 53·5 | 6 above | 81 | +31 | 0 | - 5 | 3531 | +504 | 301 | -188 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST - | 57 | 30 | 53·9 | 40·8 | 47·2 | 2 above | 41 | + 3 | 3 | - 5 | 2540 | +197 | 420 | - 61 |
| | 7. ENGLAND, N.W. - | 62 | 28 | 55·9 | 42·8 | 49·2 | 3 above | 50 | + 8 | 0 | - 5 | 2924 | +357 | 320 | -150 |
| | 8. ENGLAND, S.W. - | 70 | 35 | 60·0 | 49·4 | 54·5 | 7 above | 88 | +37 | 0 | - 3 | 3406 | +572 | 243 | -125 |
| | 9. IRELAND, NORTH - | 61 | 31 | 55·6 | 42·8 | 49·1 | 3 above | 50 | + 8 | 0 | - 5 | 2770 | +303 | 325 | - 82 |
| | 10. IRELAND, SOUTH - | 63 | 30 | 57·6 | 44·2 | 50·7 | 3 above | 61 | +12 | 0 | - 5 | 3222 | +431 | 250 | - 62 |
| | —CHANNEL ISLANDS- | 66 | 48 | 61·2 | 53·9 | 57·4 | 6 above | 108 | +37 | 0 | 0 | 4035 | +804 | 81 | - 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 254.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH - | 5 | 11 | 1 more | 184 | -13 | 39·4 | + 0·7 | 13 | - 2 | 20 | - 2 | 1167 | +153 | 29 | + 4 |
| | 1. SCOTLAND, EAST - | 4 | 2 | 5 less | 163 | + 2 | 25·6 | - 0·1 | 17 | - 1 | 25 | - 1 | 1267 | + 81 | 32 | + 2 |
| | 2. ENGLAND, N.E. - - | 3 | 3 | 3 less | 142 | - 9 | 19·8 | - 1·4 | 16 | + 1 | 24 | + 3 | 1263 | +112 | 33 | + 3 |
| | 3. ENGLAND, EAST - | 3 | 9 | 3 more | 129 | -18 | 17·7 | - 3·4 | 14 | -11 | 21 | -14 | 1750 | +280 | 44 | + 8 |
| | 4. MIDLAND COUNTIES | 4 | 9 | 3 more | 127 | -17 | 21·0 | - 2·0 | 12 | - 9 | 17 | -10 | 1538 | +315 | 41 | + 8 |
| | 5. ENGLAND, SOUTH - | 2 | 9 | 1 more | 110 | -29 | 18·4 | - 4·9 | 21 | - 4 | 30 | - 4 | 1870 | +365 | 48 | +10 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST - | 5 | 11 | 1 less | 178 | +11 | 38·8 | - 1·2 | 11 | - 7 | 16 | -10 | 1287 | + 31 | 33 | + 1 |
| | 7. ENGLAND, N.W. - | 4 | 7 | 3 less | 156 | 0 | 28·8 | + 0·7 | 16 | + 1 | 24 | + 2 | 1515 | +260 | 39 | + 7 |
| | 8. ENGLAND, S.W. - - | 5 | 15 | 5 more | 141 | -16 | 30·1 | - 1·5 | 18 | - 5 | 26 | - 5 | 1800 | +275 | 47 | + 8 |
| | 9. IRELAND, NORTH - | 5 | 7 | 2 less | 184 | + 2 | 29·1 | - 1·0 | 19 | 0 | 28 | 0 | 1329 | +171 | 34 | + 4 |
| | 10. IRELAND, SOUTH - | 4 | 6 | 4 less | 152 | -12 | 31·3 | + 0·1 | 12 | -10 | 17 | -14 | 1501 | +184 | 39 | + 5 |
| | — CHANNEL ISLANDS- | 5 | 8 | 1 less | 125 | -31 | 21·0 | - 5·0 | 20 | + 1 | 29 | + 2 | 1986 | +302 | 54 | + 8 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* continued fine and dry, with fog in places, until the middle of the week, when rain spread gradually over the Kingdom from the westward.

*Temperature* was above the mean, the excess ranging from 2° in Scotland E. and W., to 6° in England S. and the Channel Islands, and to as much as 7° in England S.W. The highest of the maxima were recorded during the latter half of the week, when the thermometer rose to 70° in England S.W. (at Llandovery), 66° in the Channel Islands, 64° in England S. and Scotland N., to between 60° and 63° in the other English districts and over Ireland, and to 57° in Scotland W. The lowest of the minima occurred at the beginning of the period, and ranged from 28° in England N.W., and 29° in Scotland N. and E. and the Midland Counties, to 35° in England S. and S W., and to 48° in the Channel Islands.

*Rainfall* exceeded the mean in the Midland Counties and England S., S.W. and E., as well as in Scotland N., but elsewhere there was again a deficit. The fall was very heavy in the south and south-west of England on Thursday or Friday, amounting to nearly an inch at several stations, to 1·00 in. at Shaftesbury, 1·06 ins. in London, and 1·20 ins. at Plymouth.

*Bright Sunshine* was deficient in almost all districts. The percentage of the possible duration ranged from 30 in England S., and 29 in the Channel Islands, to 17 in the Midland Counties and Ireland S., and to 16 in Scotland W.

*Barometer and Wind.*—During the earlier half of the week the distribution of pressure was anticyclonic and the winds light and variable. After Wednesday, however, depressions approached our Islands from the Atlantic, causing the wind to shift to the South-Westward and North-Westward and to increase greatly in force in the west and north, and to some extent in the south and east also.

207 | 90 Wy. & S., Ltd.
913 | 70 10 | 99.

# II.—DATA from which the SUMMARY on page 253 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 53 | 37 | 50·0 | 41·1 | 45·4 | + 1·1 | 28 | 3 | 6 | 0·89 | − 0·12 | * | * | * | * |
| | Stornoway | 56 | 36 | 53·9 | 40·9 | 47·2 | + 2·2 | 41 | 3 | 6 | 1·02 | − 0·16 | 10·8 | − 6·9 | 17 | − 9 |
| | Wick | 56 | 34 | 52·9 | 40·9 | 46·7 | + 2·8 | 38 | 3 | 4 | 0·11 | − 0·65 | * | * | * | * |
| | Lairg Ⓢ | 61 | 29 | 56·0 | 37·8 | 46·6 | + 4·0 | 50 | 12 | 5 | 0·53 | − 0·35 | * | * | * | * |
| | Glencarron Ⓢ | 56 | 37 | 52·4 | 44·0 | 48·1 | + 4·7 | 43 | 0 | 6 | 2·41 | + 0·29 | * | * | * | * |
| | Fort Augustus Ⓢ | 56 | 33 | 54·4 | 40·3 | 47·1 | + 2·3 | 43 | 5 | 4 | 1·07 | + 0·15 | 11·9 | + 0·6 | 18 | + 1 |
| | Fort William Ⓢ | 56 | 36 | 53·6 | 43·0 | 48·1 | + 2·8 | 43 | 0 | 6 | 1·83 | + 1·12 | 10·7 | − 5·2 | 16 | − 7 |
| 1. SCOTLAND E. | Nairn | 58 | 29 | 55·3 | 36·0 | 45·4 | + 1·6 | 49 | 17 | 4 | 0·12 | − 0·39 | * | * | * | * |
| | Aberdeen | 57 | 35 | 55·0 | 39·6 | 47·1 | + 2·4 | 46 | 7 | 4 | 0·09 | − 0·56 | 27·5 | + 6·5 | 42 | +12 |
| | Braemar Ⓢ | 57 | 29 | 52·0 | 36·6 | 44·1 | + 3·1 | 37 | 15 | 3 | 0·09 | − 0·86 | 18·7† | + 5·4† | 28† | + 8† |
| | Ochtertyre Ⓢ | 57 | 35 | 55·0 | 37·9 | 46·2 | + 2·1 | 47 | 11 | 4 | 0·41 | − 0·57 | * | * | * | * |
| | Leith | 59 | 35 | 55·4 | 39·6 | 47·3 | + 1·4 | 47 | 7 | 3 | 0·15 | − 0·25 | * | * | * | * |
| | Marchmont Ⓢ | 59 | 30 | 53·1 | 37·1 | 44·9 | + 1·3 | 41 | 14 | 4 | 0 41 | − 0·33 | 12·8 | − 5·6 | 19 | − 8 |
| 2. ENGLAND, N.E. | Alnwick Castle | 60 | 33 | 55·9 | 42·3 | 48·9 | + 4·0 | 48 | 0 | 2 | 0·17 | − 0·51 | * | * | * | * |
| | Durham | 60 | 33 | 54·6 | 38·3 | 46·2 | + 1·8 | 45 | 10 | 3 | 0·12 | − 0·56 | 16·7 | − 1·8 | 25 | − 1 |
| | Shields | 60 | 37 | 54·7 | 41·1 | 47·7 | + 1·8 | 44 | 3 | 2 | 0·18 | − 0·40 | * | * | * | * |
| | Scarborough Ⓜ | 58 | 37 | 55·0 | 43·7 | 49·2 | + 2·8 | 50 | 0 | 4 | 0·54 | − 0·19 | ? | ? | ? | ? |
| | Spurn Head | 56 | 43 | 54·3 | 45·9 | 50·0 | + 2·7 | 56 | 0 | 3 | 0·51 | − 0·04 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 59 | 37 | 54·7 | 43·7 | 49·0 | + 3·2 | 49 | 0 | 4 | 0·99 | + 0·38 | 10·8 | − 9·2 | 16 | −13 |
| | Yarmouth | 60 | 37 | 55·4 | 42·4 | 48·7 | + 1·4 | 47 | 0 | 3 | 0·69 | − 0·01 | * | * | * | * |
| | Geldeston | 62 | 30 | 59·1 | 41·2 | 49·9 | + 3·1 | 59 | 2 | 4 | 0·83 | + 0·18 | 14·8 | − 7·9 | 21 | − 9 |
| | Cambridge | 61 | 38 | 57·5 | 42·9 | 50·0 | + 3·7 | 56 | 0 | 3 | 1·00 | + 0·46 | 7·5 | −14·5 | 11 | −19 |
| | Felixstowe | 63 | 38 | 59·0 | 44·6 | 51·6 | + 4·6 | 67 | 0 | 2 | 1·12 | ? | 16·0 | ? | 23 | ? |
| | Rothamsted | 61 | 35 | 57·9 | 43·9 | 50·7 | + 5·6 | 61 | 0 | 3 | 1·00 | + 0·30 | 11·1 | −12·1 | 16 | −16 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 58 | 32 | 54·7 | 41·3 | 47·8 | + 2·9 | 44 | 2 | 4 | 0·58 | − 0·02 | * | * | * | * |
| | Loughborough | 60 | 35 | 56·1 | 41·0 | 48·3 | + 2·5 | 48 | 3 | 3 | 0·88 | + 0·26 | * | * | * | * |
| | Stamford (Ketton) | 60 | 37 | 56·9 | 43·2 | 49·9 | + 4·3 | 55 | 0 | 4 | 0·95 | + 0·34 | * | * | * | * |
| | Cheadle Ⓜ | 59 | 38 | 54·9 | 44·4 | 49·5 | + 4·9 | 53 | 0 | 3 | 0·90 | + 0·08 | * | * | * | * |
| | Shirley (near Solihull) | 60 | 29 | 56·9 | 41·7 | 49·1 | + 4·8 | 51 | 1 | 4 | 0·87 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 63 | 36 | 58·0 | 44·2 | 50·9 | + 5·4 | 62 | 0 | 5 | 0·77 | − 0·05 | 14·4 | − 5·1 | 21 | − 6 |
| | Hereford (Belmont) Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 62 | 35 | 58·0 | 43·7 | 50·6 | + 5·6 | 60 | 0 | 4 | 1·12 | + 0·38 | 13·6 | − 8·2 | 20 | −10 |
| | Oxford | 61 | 34 | 57·3 | 44·4 | 50·7 | + 4·1 | 61 | 0 | 2 | 1·33 | + 0·76 | 8·5 | −13·1 | 12 | −18 |
| 5. ENGLAND, S. | London | 64 | 39 | 58·9 | 44·9 | 51·7 | + 4·3 | 68 | 0 | 2 | 1·33 | + 0·69 | 6·0† | −10·8† | 9† | −13† |
| | Cranley Ⓜ | 63 | 35 | 60·9 | 45·3 | 52·9 | + 6·3 | 76 | 0 | 2 | 0·96 | ? | * | * | * | * |
| | Dungeness | 63 | 39 | 59·4 | 46·7 | 52·9 | + 3·7 | 76 | 0 | 2 | 0·11 | − 0·67 | * | * | * | * |
| | Hastings (St. Leonards) | 63 | 42 | 59·9 | 48·1 | 53·8 | + 5·2 | 83 | 0 | 3 | 0·37 | − 0·53 | 23·4 | − 1·6 | 34 | − 1 |
| | Southampton | 63 | 36 | 61·4 | 46·7 | 53·8 | + 5·5 | 83 | 0 | 3 | 1·08 | + 0·28 | 20·3 | − 3·7 | 29 | − 4 |
| | Portland Bill | 62 | 49 | 59·3 | 51·9 | 55·5 | + 6·6 | 95 | 0 | 2 | 0·79 | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 64 | 45 | 59·9 | 48·5 | 54·0 | + 8·9 | 84 | 0 | 2 | 1·40 | + 0·56 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 57 | 40 | 55·1 | 45·1 | 50·0 | + 3·7 | 56 | 0 | 6 | 1·48 | − 0·24 | * | * | * | * |
| | Glasgow | 56 | 35 | 52·6 | 42·1 | 47·2 | + 2·2 | 36 | 0 | 5 | 0·77 | − 0·11 | 7·2 | − 7·0 | 11 | − 9 |
| | Glenlee Ⓢ | 54 | 30 | 52·7 | 36·1 | 44·2 | − 0·5 | 40 | 17 | 5 | 1·35 | − 0·03 | * | * | * | * |
| | Douglas (Isle of Man) | 57 | 35 | 55·1 | 39·7 | 47·2 | + 0·6 | 46 | 6 | 4 | 0·92 | − 0·16 | 14·1 | − 6·9 | 21 | −10 |
| 7. ENGLAND, N.W. | Newton Reigny | 62 | 31 | 55·0 | 35·3 | 44·9 | + 0·6 | 48 | 19 | 3 | 0·59 | ? | 21·5 | ? | 32 | ? |
| | Stonyhurst | 57 | 35 | 53·5 | 42·5 | 47·8 | + 3·0 | 41 | 0 | 4 | 0·78 | − 0·40 | 18·2 | + 1·2 | 27 | + 2 |
| | Blackpool Ⓜ | 58 | 35 | 56·2 | 41·5 | 48·6 | + 1·7 | 48 | 1 | 4 | 0·63 | − 0·27 | 19·0 | + 1·0 | 28 | + 3 |
| | Manchester (Prestwich) | 61 | 28 | 56·3 | 41·6 | 48·7 | + 2·9 | 49 | 1 | 4 | 0·92 | + 0·04 | 8·9 | ? | 13 | ? |
| | Liverpool Obsy. (Bidston) | 59 | 40 | 55·9 | 44·3 | 49·9 | + 2·8 | 55 | 0 | 4 | 0·79 | + 0·04 | 13·9 | ? | 20 | ? |
| | Llandudno Ⓜ | 62 | 44 | 58·3 | 47·3 | 52·6 | + 4·1 | 74 | 0 | 3 | 0·66 | − 0·25 | 17·4 | + 0·4 | 25 | + 1 |
| | Holyhead | 59 | 45 | 56·4 | 47·1 | 51·6 | + 2·8 | 67 | 0 | 5 | 0·44 | − 0·58 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 70 | 35 | 62·0 | 43·6 | 52·5 | + 6·7 | 74 | 0 | 5 | 1·40 | + 0·12 | * | * | * | * |
| | Pembroke | 59 | 46 | 58·6 | 51·4 | 54·9 | + 5·2 | 90 | 0 | 5 | 1·09 | + 0·14 | 19·8 | − 1·7 | 29 | − 2 |
| | Clifton | 62 | 35 | 58·4 | 46·3 | 52·2 | + 5·2 | 71 | 0 | 4 | 1·47 | + 0·65 | * | * | * | * |
| | Arlington (N. Devon) | 66 | 43 | 60·0 | 48·9 | 54·3 | + 7·4 | 86 | 0 | 6 | 2·09 | + 0·59 | * | * | * | * |
| | Cullompton Ⓜ | 63 | 40 | 61·4 | 47·4 | 54·2 | + 8·9 | 85 | 0 | 4 | 1·19 | + 0·29 | 20·1 | + 0·1 | 29 | + 2 |
| | Falmouth | 61 | 51 | 59·4 | 54·2 | 56·7 | + 7·0 | 103 | 0 | 4 | 1·50 | + 0·72 | 11·4 | −14·1 | 16 | −19 |
| | Plymouth | 66 | 47 | 60·2 | 53·8 | 56·9 | + 7·5 | 104 | 0 | 4 | 1·92 | + 1·09 | 23·9 | + 0·7 | 34 | + 3 |
| 9. IRELAND, N. | Malin Head | 56 | 44 | 54·1 | 47·4 | 50·7 | + 3·2 | 61 | 0 | 4 | 0·49 | ? | * | * | * | * |
| | Londonderry | 58 | 40 | 55·6 | 44·0 | 49·6 | + 3·8 | 53 | 0 | 4 | 0·36 | − 0·64 | * | * | * | * |
| | Edenfel (Omagh) | 57 | 31 | 54·1 | 38·1 | 45·9 | + 1·8 | 44 | 11 | 4 | 0·86 | + 0·01 | * | * | * | * |
| | Blacksod | 57 | 40 | 56·7 | 46·6 | 51·5 | + 2·3 | 67 | 0 | 5 | 0·78 | ? | * | * | * | * |
| | Markree Castle | 61 | 31 | 57·5 | 37·6 | 47·3 | + 1·8 | 56 | 12 | 6 | 0·77 | − 0·28 | 18·6 | − 1·2 | 27 | − 1 |
| | Armagh | 58 | 34 | 55·8 | 42·5 | 49·0 | + 4·0 | 49 | 0 | 5 | 0·79 | + 0·07 | 19·8 | + 1·8 | 29 | + 2 |
| | Donaghadee | 57 | 39 | 55·6 | 43·7 | 49 5 | + 3·0 | 53 | 0 | 5 | 0·63 | − 0·19 | * | * | * | * |
| 10. IRELAND, S. | Dublin | 63 | 40 | 58·4 | 45·1 | 51·6 | + 4·0 | 67 | 0 | 4 | 0·23 | − 0·51 | 15·7 | − 7·3 | 23 | −10 |
| | Parsonstown | 59 | 30 | 56·3 | 42·1 | 49·0 | + 2·9 | 49 | 0 | 5 | 0·48 | − 0·16 | 11·0 | − 9·0 | 16 | −13 |
| | Kilkenny | 60 | 31 | 57·7 | 41·9 | 49·6 | + 3·3 | 54 | 0 | 4 | 0·56 | − 0·22 | * | * | * | * |
| | Roche's Point | 59 | 40 | 57·4 | 46·7 | 51·9 | + 2·5 | 69 | 0 | 3 | 0·43 | − 0·57 | * | * | * | * |
| | Valencia | 60 | 39 | 58·9 | 43·7 | 51·1 | + 1·2 | 64 | 0 | 5 | 1·17 | − 0·20 | 9·0 | −13·4 | 13 | −18 |
| | Killarney | | | | | | | | | | | | * | * | * | * |
| | Foynes | 60 | 42 | 56·9 | 45·4 | 51·0 | + 4·1 | 63 | 0 | 4 | 0·57 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 62 | 52 | 60·3 | 54·0 | 57·1 | + 5·4 | 106 | 0 | 5 | 1·29 | + 0·48 | 8·4 | ? | 12 | ? |
| | Jersey | 66 | 48 | 62·0 | 53·7 | 57·7 | + 6·5 | 110 | 0 | 4 | 0·34 | − 0·76 | 25·9 | − 1·1 | 37 | 0 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

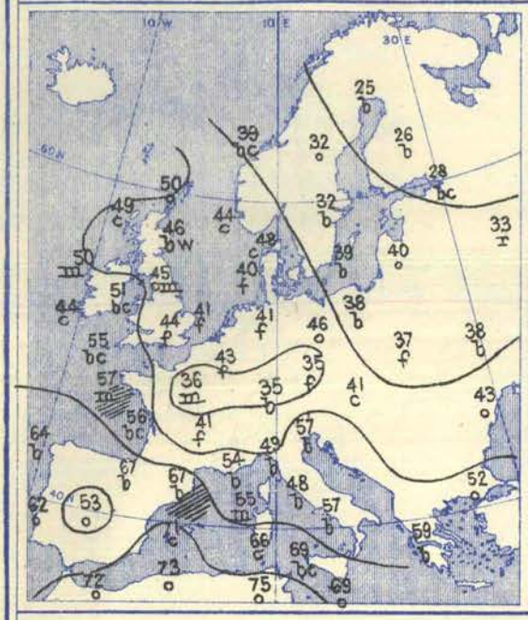
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 22nd October.

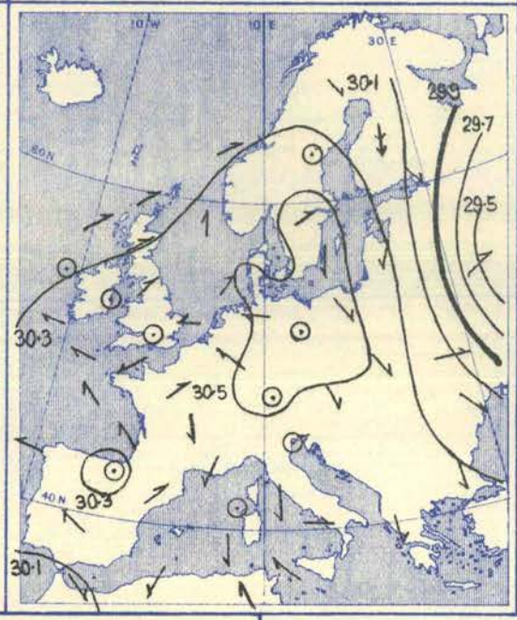
### Temperature and Weather. 8 a.m.

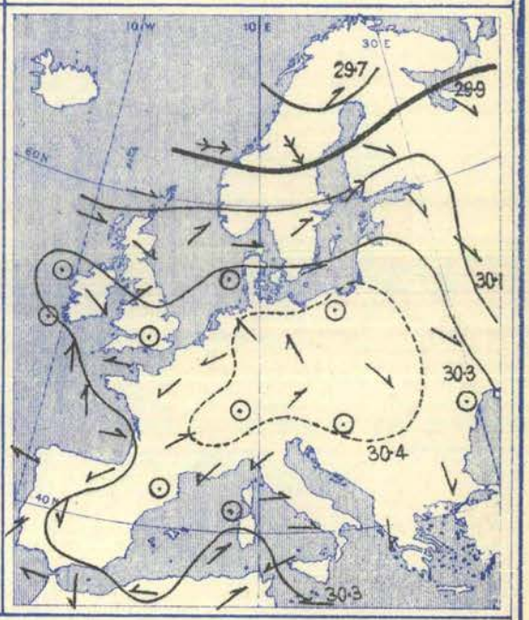


*Weather* in morning fine (but foggy in many places) over southern, south-eastern, and central Europe, as well as France, the British Isles, Scandinavia, and Denmark; dull and rainy over central Russia. Rain falling later at Christiansund and Haparanda, and a considerable amount of dew deposited in the gauges over the British Islands; foggy, but fair, weather continuing over the United Kingdom and central Europe.

*Temperature* was falling over Scotland, rising over England and France. Morning readings highest, 73° at Algiers, 71° at Palma, 69° at Palermo, 67° at Biarritz, 57° at Brest, 55° at Scilly, 51° at Donaghadee. Lowest, (1) 25° at Haparanda, 26° at Kuopio, 33° at Moscow; (2) 33° at Wiesbaden, 35° at Prague and Munich; (3) 38° at Nairn, 39° at Leith, 41° at Oxford. Exceeding 50° all over our Islands later, and touching 62° at Brussels, 63° at Paris and Belfort, 74° at Perpignan.

### Barometer and Wind. 8 a.m. and 6 p.m.



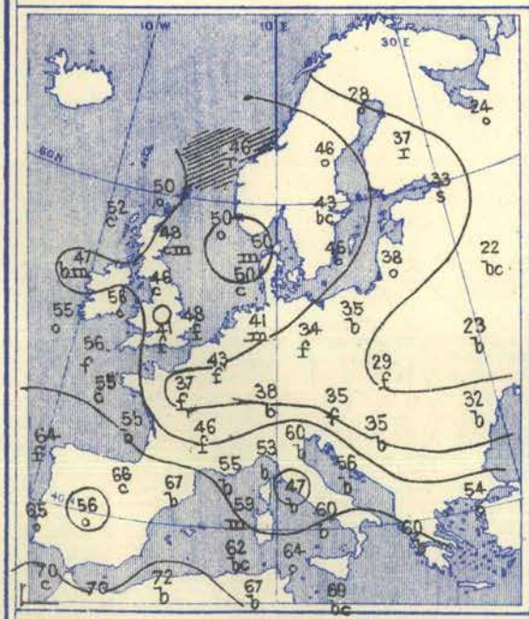


*Wind* (1) light and very variable (anticyclonic) over the greater part of Continental Europe, England, and Ireland; (2) Northerly over Russia and Finland, South-Westerly to Southerly in Scotland and the north of Ireland. A Westerly gale prevalent over Scandinavia later, and a South-Westerly strong wind over the Gulf of Finland.

*Barometer* highest, 30·5 ins. and more over central Europe and the south of Sweden; above 30·4 ins. over the south-eastern part of England, the greater part of France, Italy, and parts of the Mediterranean. Lowest, 29·5 ins. and less over central Russia; 30·2 ins. and less over the Shetlands. Giving way considerably over northern Europe later, to which region a depression advanced from the Atlantic; rising greatly over central Russia.

## Monday, 23rd October.

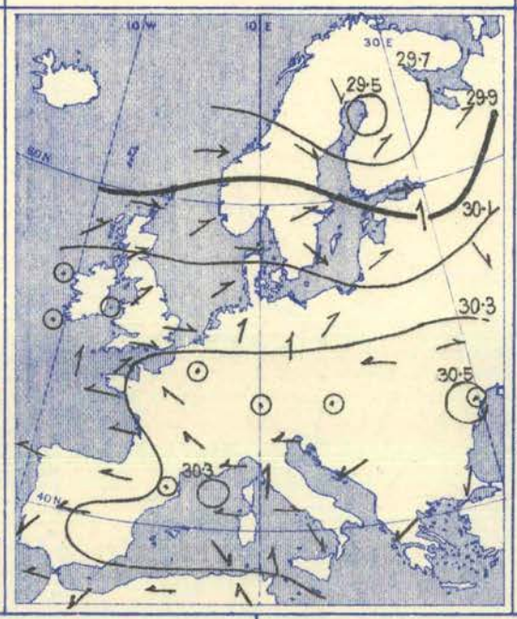
### Temperature and Weather. 8 a.m.

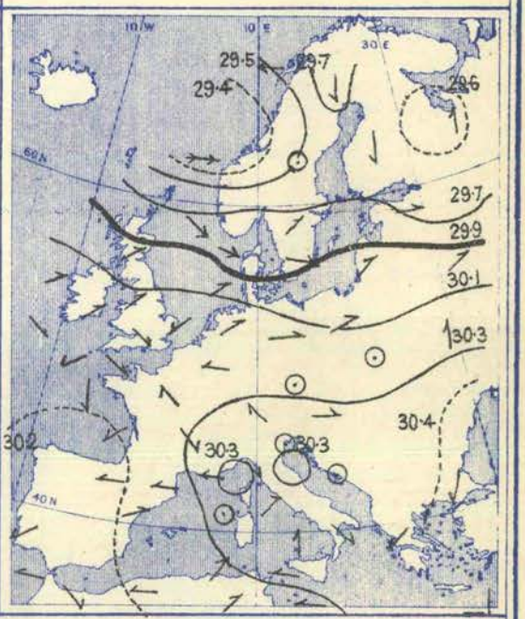


*Weather* in morning fair but foggy all over south-eastern, central, southern and western Europe; fog very humid in places; more cloudy over northern Europe, and rainy at Christiansund. A little rain later in all parts of Ireland and Scotland, and nearly half an inch at Christiansund; fog decreasing temporarily in several places.

*Temperature* rising fast over northern Europe. Morning readings highest, 72° to 64° over the southern side of the Mediterranean, 66° at Biarritz, 56° at Scilly and at Holyhead, 55° in the south of Ireland, 51° at Nairn. Lowest, (1) 22° at Moscow, 24° at Archangel, 33° at St. Petersburgh; (2) 29° to 35° over central and south-eastern Europe; (3) 39° at Loughborough. Rising later to between 55° and 60° in nearly all parts of our Islands, to 68° at Paris, 77° at Ile d'Aix and 79° at Biarritz. Falling again in Scotland at night.

### Barometer and Wind. 8 a.m. and 6 p.m.



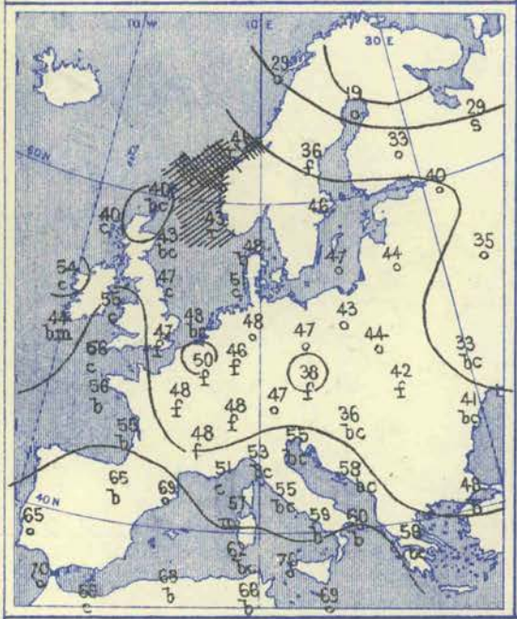


*Wind* very light and variable (anticyclonic) over all the southern half of Europe including Ireland, England and the northern parts of Germany. Westerly to South-Westerly over Scotland, Denmark and northern Europe, and inclined to increase in force. A strong South-West to North-West wind setting in over the northern countries later, with unsettled weather.

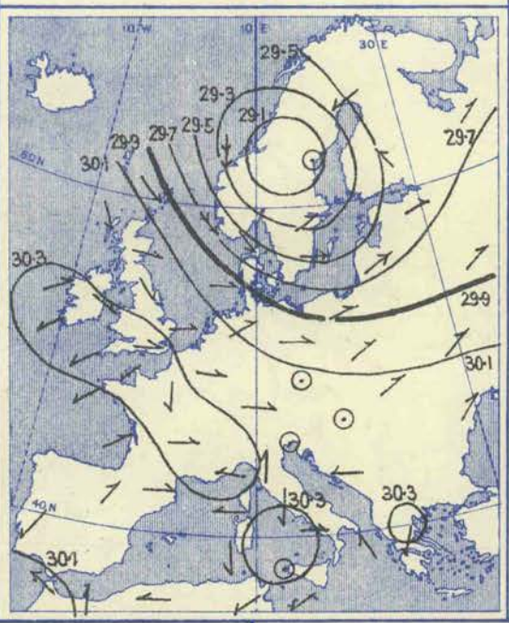
*Barometer* highest, 30·4 ins. and more all over south-eastern Europe, and exceeding 30·2 ins. over Ireland, England and north Germany. Lowest, 29·5 ins. and less over the north of Finland, and below 30·0 ins. in the Shetlands. Falling fast later at the Norwegian and Scotch stations as a new depression advanced towards Norway from the north-westward.

## Tuesday, 24th October.

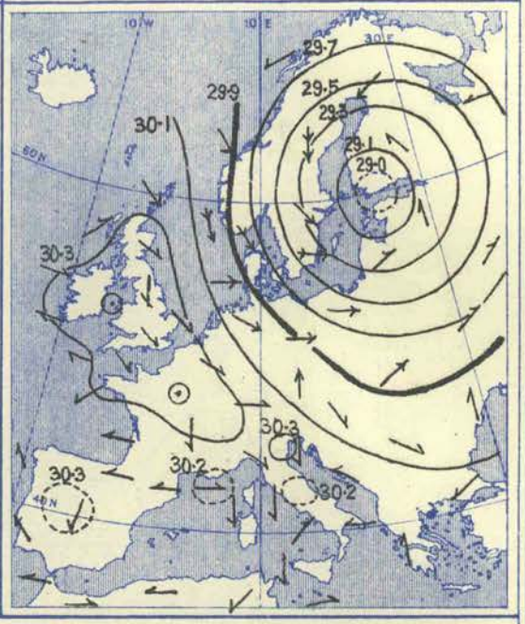
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair or fine over western and southern Europe as a whole, but foggy over the central and south-eastern parts of England and the south of Ireland, as well as over Belgium and central France. Dull in most of the northern, eastern, and central countries, with fog in places, and with rain in the west of Norway, as well as at Copenhagen and Memel; snow falling at Archangel. Slight rain falling later at several of our own western and northern stations.

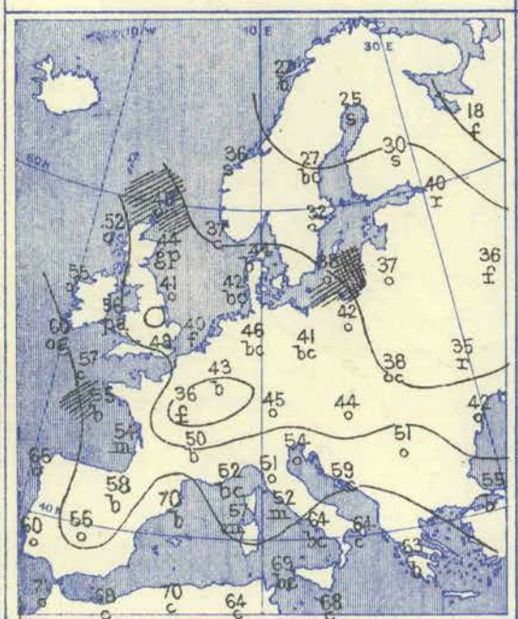
*Temperature* fallen in the west and north of our Islands, and also in Scandinavia and Finland, but rising elsewhere. Morning readings highest, 70° at Palermo and San Fernando, and 69° at Barcelona, Malta, and Oran; above 65° at most of the Mediterranean and Spanish coast stations. Lowest, 19° at Haparanda, 26° at Uleaborg, and 29° at Archangel and Kharkov. Daily maxima below 50° on our extreme northern coasts, but slightly above 60° at some of our southern stations. Exceeding 70° in the west and south of France.

*Wind* light from the Eastward or North-Eastward over the south of our Islands and the north of France. Light to moderate from between West and North in the northern parts of our Islands, and strong to a gale from the same quarters on the eastern shores of the North Sea. Moderate to strong from the Westward or South-Westward over Germany and the Baltic; Southerly or South-Easterly in Finland, Easterly in the north of Scandinavia. Light and variable over southern Europe generally. Subsequently shifting to the South-Westward on our own extreme north-west coasts; no important change occurring elsewhere.

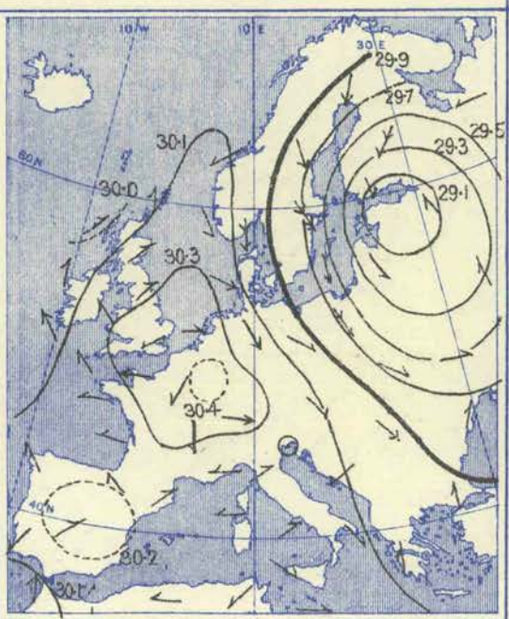
*Barometer* highest, 30·2 ins. to 30·3 ins. and upwards in an anticyclone covering the greater part of western and southern Europe. Lowest, 29·1 ins. and less in a large and deep depression with its centre over the central parts of Scandinavia. Gradients steep over northern Europe generally. Depression subsequently moving eastwards; barometer rising briskly in Norway, but beginning to fall on our own western coasts in evening.

## Wednesday, 25th October.

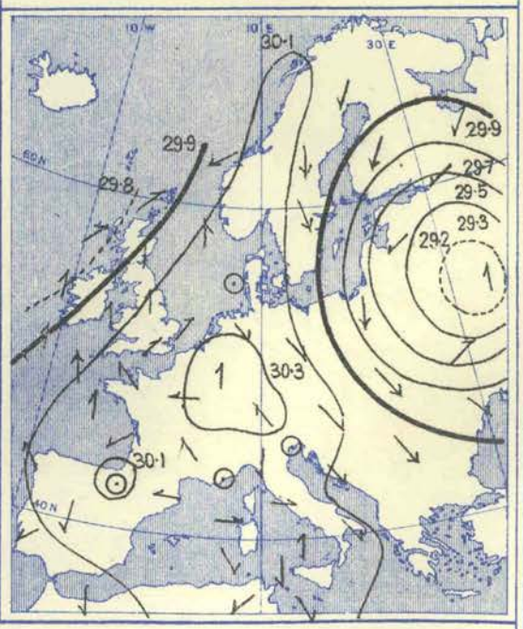
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over France, western Germany and the greater part of England, but foggy or hazy in many localities; dull and rather unsettled in Ireland and Scotland, very dull, rainy and unsettled over Finland and many parts of Russia. Rain falling generally over Ireland, Wales and Scotland later, but weather, though cloudy, remaining moderately fair over England and France.

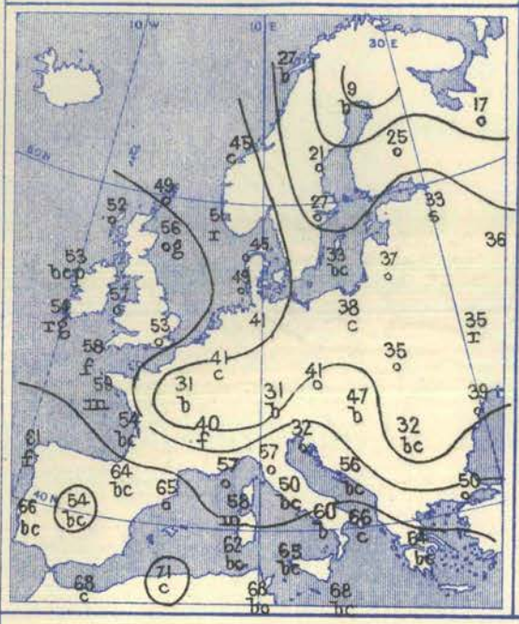
*Temperature* risen considerably in Ireland and the west of Scotland; fallen over Scandinavia, Germany and France. Morning readings highest, 70° at Algiers, 69° at Palermo, 64° at Brindisi, 58° to 53° in the west of France, 60° to 50° on our own west and south-west coasts. Lowest, (1) 18° at Archangel, 25° at Haparanda, 36° at Moscow; (2) 36° at Paris, 30° both at Wiesbaden and at Loughborough. Rising later to 58° at Aberdeen, to 60° and more on our south-western coasts and in London, to 66° at Brest and 77° at Perpignan.

*Wind* (1) light and anticyclonic over the south-eastern half of England, the greater part of France and the west and south-west of Germany; (2) cyclonic and blowing a hard gale from between North-East and North-West over Finland, the Baltic and north Germany. The Southerly wind becoming general in our Islands later, and increasing in force on our north-east coasts.

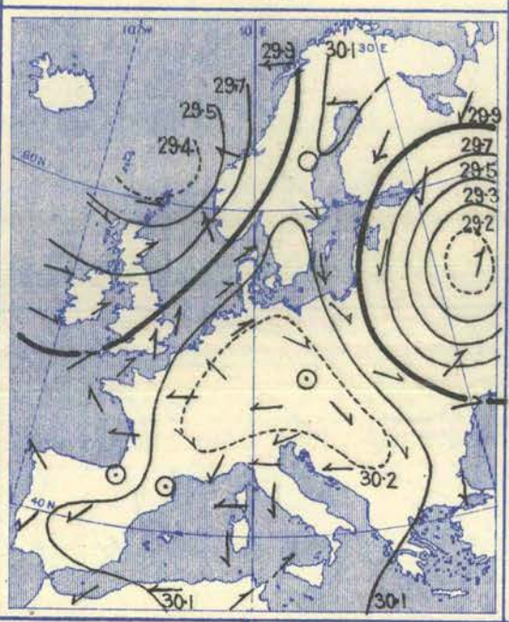
*Barometer* in morning highest, 30·43 ins. at Brussels, and exceeding 30·3 ins. over England, the north-east of France and western Germany. Lowest, (1) 30·1 ins. to 30·0 ins. over our western districts; (2) 29·0 ins. and less to 29·2 ins. in a depression over the Gulf of Finland. Gradients very steep over the Baltic and Finland. Falling decidedly at our western stations later, and fall spreading eastwards. Depression over Finland moving south-eastwards.

## Thursday, 26th October.

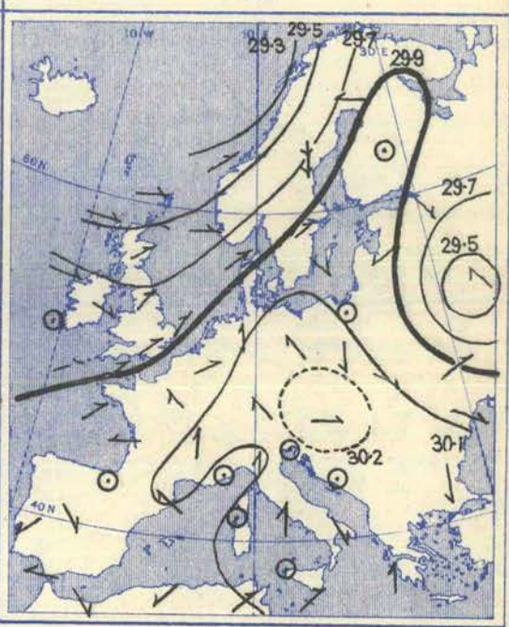
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning (1) fine over the Mediterranean, France and central Europe; fair, but not settled over the north-west of Germany and south of Sweden; (2) fine and bright over the northern extremity of the Gulf of Bothnia; dull and rainy over the British Islands, and also over Russia, with snow at St. Petersburg. Rain falling later all over the British Islands and the neighbourhood; rain and snow in Sweden and Lapland; very dull and close over England.

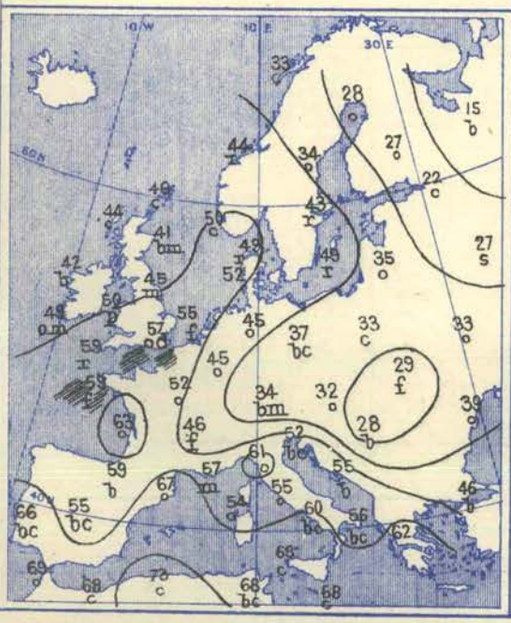
*Temperature* in morning highest, (1) 71° at Algiers, 68° at Malta, 66° at Brindisi, 65° at Barcelona; (2) 59° at Brest, 58° at Scilly, and above 50° over nearly the whole of the British Isles. Lowest, (1) 9° at Haparanda, 17° at Archangel, 27° at Stockholm, 33° at St. Petersburg, and 36° at Moscow; (2) 31° at Munich and Paris, 33° at Wiesbaden, 39° both at Belfort and Berlin. Rising later to 50° and more in Norway, and to 60° and more in many parts of England; to 66° at Lorient, and to 73° at Rochefort and Biarritz.

*Wind* (1) light and anticyclonic over central Europe and the Mediterranean; (2) cyclonic, Northerly (but decreasing in force) over the west of Russia; (3) Westerly to Southerly, but of no great strength, over our Islands and their neighbourhood; South-Easterly in the west of France. No great change reported later.

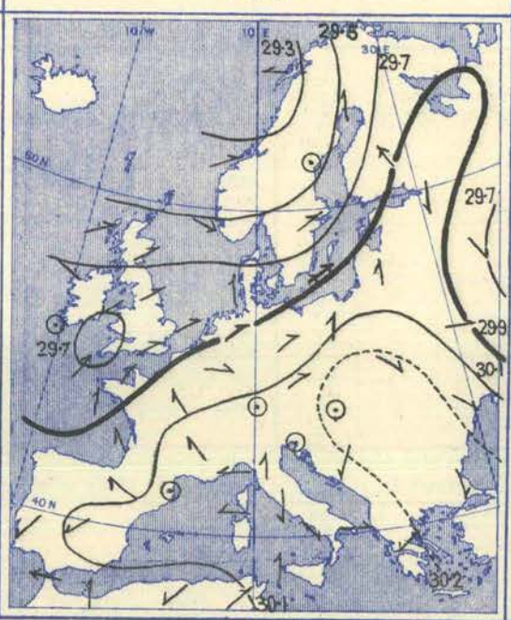
*Barometer* 30·2 ins. and more to 30·1 ins. in a large anticyclone covering central Europe and the Mediterranean, and in a "ridge" extending northward to the neighbourhood of Stockholm. Lowest, (1) 29·2 ins. and less in a depression over central Russia; (2) 29·4 ins. and less in another depression lying slightly to the northward of the Shetland Isles. Some slight secondary disturbances shown over our south-west districts; falling somewhat over France and our southern stations later; rising slightly in the north.

## Friday, 27th October.

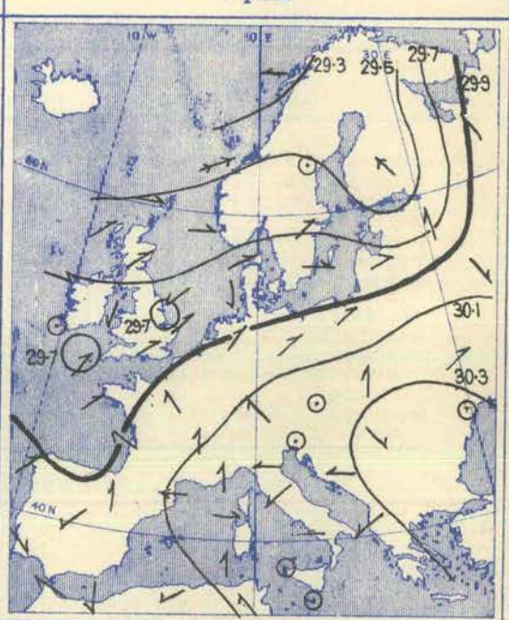
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning fair over the Mediterranean, southern and south-eastern Europe, as well as in Scotland; rainy and dull in the south and south-west of our Islands; unsettled, but clearing over the north of Russia (with snow at Moscow), and rainy in some parts of Norway. Considerable rain later over Scandinavia and the eastern shores of the North Sea, and large quantities over the south of England; fine over France generally, but lightning at Biarritz.

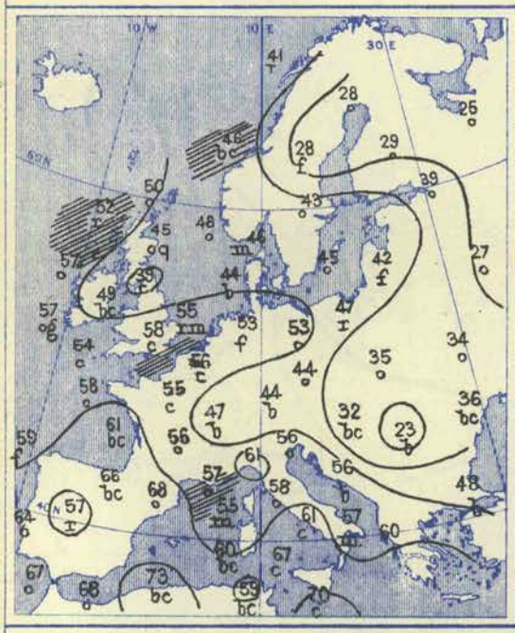
*Temperature* risen over England and France; fallen fast over Scotland and Ireland. Morning readings highest, 73° at Algiers, 68° at Malta and Palermo, 60° at Naples; 59° over Brittany and at Scilly, 58° at Dungeness. Lowest, (1) 15° at Archangel, 22° at St. Petersburg, 27° at Moscow; (2) 28° at Lemberg and Buda Pesth, 34° at Munich; (3) 40° at Nairn, 42° at Blacksod and Donaghadee, 45° at Shields. Rising later to above 60° in the south of our Islands (air very humid) to 66° at Paris, 71° at Leghorn, 77° at Cagliari and Brindisi.

*Wind* (1) light and anticyclonic over the southern and central parts of Europe; (2) very strong, Southerly, cyclonic over the Baltic and Finland, but Westerly over the greater part of Norway; (3) light over our Islands generally—Westerly to South-Westerly in the north; Southerly to South-Westerly in the east; variable and North-Westerly in the south of Ireland. Backing at our northern stations later.

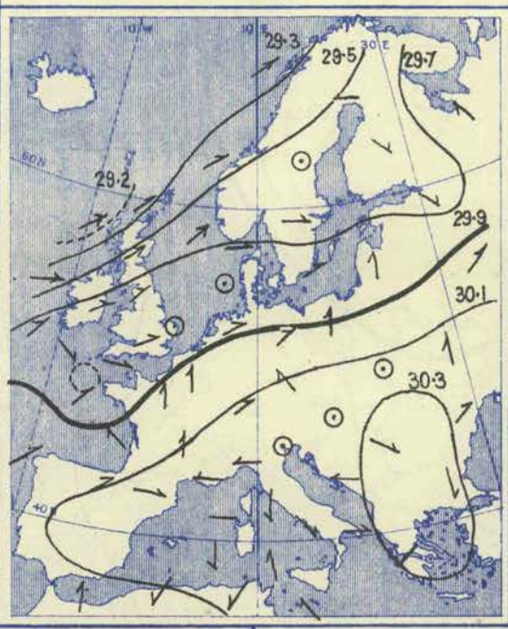
*Barometer* highest, 30·2 ins. and more over south-eastern Europe and Asia Minor, and exceeding 30·6 ins. over south-western, southern and central Europe, with a narrow "ridge" extending northwards to the eastern shores of the White Sea. Lowest, (1) 29·7 ins. and less in a (decreasing) depression over the eastern parts of Russia; (2) 29·3 ins. and less over the north-west of Scandinavia; (3) 29·7 ins. and less in a small shallow depression at the mouth of the Bristol Channel. A new disturbance beginning to approach our north-west coasts later.

## Saturday, 28th October.

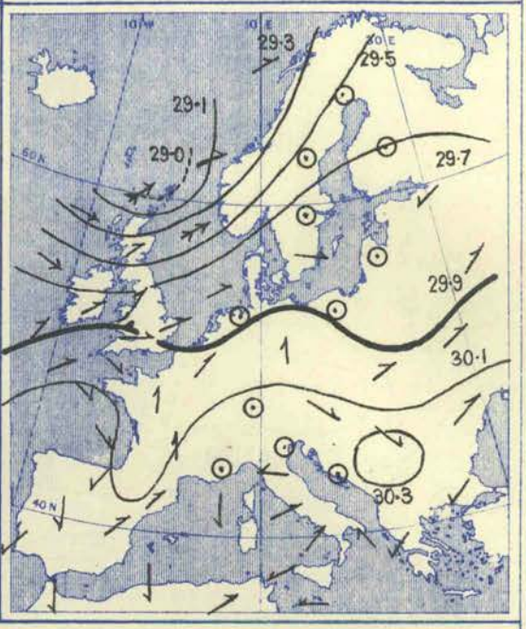
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the Mediterranean, south-western, southern and south-eastern Europe. Very changeable and unsettled over the British Islands and their neighbourhood; rainy and unsettled at Malin Head, Stornoway, Bodö and the Helder. Considerable rainfall occurring later at several of our most western and north-western stations, but fair, warm weather in the south-east of England.

*Temperature* in morning highest, (1) 73° at Algiers, 70° at Malta, 60° at Patras and Perpignan; (2) 61° at Rochefort, 60° at Jersey and Dungeness, 58° at Brest, Portland Bill and in London, 57° at Valencia. Lowest, (1) 25° to 29° in the extreme north of Europe, 27° at Moscow; (2) 23° at Hermanstadt, 32° at Kharkov, 34° at Kiev; (3) 39° at Shields. Rising later to 58° at Aberdeen, 57° in Ireland, and to 64° in London; to 66° at Paris and 71° at Lyons.

*Wind* light and variable (mainly anticyclonic), over the southern half of Europe; variable in the north, South-Westerly to Southerly and increasing over Scotland and Ireland, and already blowing force "7" in the north-west of Ireland. Strong gales shifting from South-West to North-West in the most northern parts of our Islands later, but wind continuing moderate in the south.

*Barometer* highest, 30·3 ins. and more over south-eastern Europe, and exceeding 30·1 ins. over the Mediterranean, the south of France and south Germany, and 29·2 ins. and less off the extreme north-west of the British Isles (gradients steep over Scotland and Ireland), and various shallow disturbances found over the North Sea, Wales, and at the mouth of the English Channel. The northern depression moving north-eastwards later, the shallow disturbances mentioned above filling up.

### GENERAL NOTES.

During the earlier days of this week the weather over the southern and western countries of Europe remained anticyclonic and very quiet, the only cyclonic systems which appeared coming over the most northern countries from the Atlantic and advancing south-eastwards to Russia—so that the Baltic and Russia had a good deal of rough weather, while the British Islands and France had bright or foggy weather, and a great deal of dew at night.

On Wednesday, however, pressure began to give way decidedly at our western and north-western stations, and the anticyclone, which had till then dominated the weather over our Islands, began to move south-eastwards. By Thursday depressions of considerable size were beginning to appear in the north, and shallow secondaries were advancing over Ireland towards England; these increased in number during the next day or two, and, except over southern Europe, very rough and unsettled weather became prevalent, with large quantities of rain locally.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 254.

| Stations | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | Stations. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 9·5 | ? | 15 | ? | BRIGHTON | 29·4 | + 3·6 | 43 | + 6 |
| STRATHPEFFER SPA | 23·1 | + 3·9 | 36 | + 7 | WORTHING | 27·1 | ? | 39 | ? |
| EDINBURGH | 7·4 | −10·8 | 11 | −14 | BOGNOR | 23·4* | ? | 34* | ? |
| MORPETH | | ? | | ? | EASTBOURNE | 21·7 | − 2·3 | 31 | − 2 |
| NEWCASTLE-ON-TYNE | 9·5 | ? | 14 | ? | VENTNOR HOSPITAL | 19·7 | ? | 29 | ? |
| OSWALDKIRK (Yorkshire) | 21·5 | + 4·4 | 32 | + 7 | SOUTHPORT | 16·3 | ? | 24 | ? |
| LOWESTOFT | 19·7 | ? | 29 | ? | COLWYN BAY | 16·0 | ? | 23 | ? |
| HOLLESLEY BAY | 21·1 | ? | 31 | ? | RHYL | 16·4* | ? | 24* | ? |
| SHEFFIELD | 13·4 | ? | 19 | ? | ABERDOVEY | 15·0* | ? | 22* | ? |
| WORKSOP | 12·8 | − 4·6 | 19 | − 5 | TENBY | 16·7 | − 6·1 | 24 | − 7 |
| THURCASTON (Leicestershire) | 7·7 | −10·8 | 11 | −15 | NEWQUAY | | | | |
| MARGATE | 12·5 | − 9·9 | 18 | −13 | TORQUAY | 17·9 | − 4·6 | 26 | − 5 |
| WESTBOURNE (Emsworth) | 21·2* | − 1·8 | 31* | − 1 | GUERNSEY | 26·1* | + 2·4 | 37* | + 4 |
| WATERGATE (Emsworth) | 25·8 | ? | 37 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| Date of Report. | Name of Stations. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week ending Sept. 9th, 1899.. | Hillington | 88 | 55 | 73·3 | 61·6 | 67·2 | + 9·8 | 176 | 0 | 3 | 1·42 | +0·86 | 43·9 | + 8·9 | 48 | +10 |
| ,, ,, ,, 16th, ,, .. | Churchstoke | 69 | 45 | 65·7 | 49·6 | 57·3 | + 1·9 | 102 | 0 | 5 | 0·18 | −0·43 | 23·4 | − 6·6 | 26 | −10 |
| ,, ,, ,, 23rd, ,, .. | Edinburgh | — | — | — | — | — | — | — | — | — | — | — | 35·6 | +11·5 | 42 | +14 |
| ,, ,, ,, 30th, ,, .. | Newquay | — | — | — | — | — | — | — | — | — | — | — | 31·2 | − 1·8 | 38 | − 2 |
| ,, ,, Oct. 7th, ,, .. | Glencarron | 53 | 34 | 42·0 | 40·3 | 44·5 | − 2·8 | 25 | 5 | 7 | 2.79 | +0·89 | — | — | — | — |
| ,, ,, ,, ,, ,, .. | Edinburgh | — | — | — | — | — | — | — | — | — | — | — | 21·7 | + 0·9 | 28 | + 1 |

WYMAN & SONS, LTD., LITH., 63, CARTER LANE.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 44.] *Third Series.* WEEK ENDING SATURDAY, NOVEMBER 4TH, 1899 [*Price 6d.* *Annual Subscription post paid* £1 10s. 0d.

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 260.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 63 | 34 | 52·2 | 41·4 | 46·8 | 4 above | 36 | +10 | 2 | −10 | 2219 | +346 | 632 | − 33 |
| | 1. SCOTLAND, EAST | 61 | 33 | 53·6 | 39·9 | 46·7 | 4 above | 42 | +14 | 6 | − 9 | 2441 | +185 | 700 | + 1 |
| | 2. ENGLAND, N.E. | 61 | 38 | 56·3 | 42·0 | 49·2 | 5 above | 50 | +18 | 0 | − 8 | 2749 | +305 | 463 | −107 |
| | 3. ENGLAND, EAST | 63 | 35 | 57·9 | 44·5 | 51·2 | 6 above | 64 | +25 | 0 | −10 | 3206 | +381 | 443 | −200 |
| | 4. MIDLAND COUNTIES | 63 | 32 | 57·2 | 43·7 | 50·5 | 6 above | 60 | +24 | 0 | −12 | 3183 | +383 | 523 | −134 |
| | 5. ENGLAND, SOUTH | 63 | 37 | 58·6 | 47·9 | 53·3 | 7 above | 79 | +34 | 0 | − 6 | 3610 | +538 | 301 | −194 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 60 | 31 | 54·3 | 44·5 | 49·4 | 5 above | 52 | +18 | 0 | −10 | 2592 | +215 | 420 | − 71 |
| | 7. ENGLAND, N.W. | 64 | 30 | 55·8 | 44·6 | 50·2 | 5 above | 57 | +20 | 0 | − 6 | 2981 | +377 | 320 | −156 |
| | 8. ENGLAND, S.W. | 62 | 34 | 57·4 | 47·3 | 52·4 | 6 above | 73 | +27 | 0 | − 3 | 3479 | +599 | 243 | −128 |
| | 9. IRELAND, NORTH | 61 | 33 | 54·1 | 42·2 | 48·2 | 3 above | 43 | + 6 | 0 | − 7 | 2813 | +309 | 325 | − 89 |
| | 10. IRELAND, SOUTH | 65 | 35 | 56·5 | 44·9 | 50·7 | 4 above | 61 | +16 | 0 | − 6 | 3283 | +447 | 250 | − 68 |
| | —CHANNEL ISLANDS | 66 | 45 | 60·0 | 51·5 | 55·8 | 5 above | 97 | +31 | 0 | 0 | 4132 | +335 | 81 | − 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 260.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 7 | 29 | 17 more | 191 | −11 | 42·3 | + 2·2 | 9 | − 6 | 15 | − 8 | 1176 | +148 | 29 | + 4 |
| | 1. SCOTLAND, EAST | 6 | 20 | 13 more | 169 | + 3 | 27·6 | + 1·2 | 17 | + 1 | 28 | + 4 | 1284 | + 83 | 32 | + 2 |
| | 2. ENGLAND, N.E. | 4 | 6 | 0 (average) | 146 | − 9 | 20·4 | − 1·5 | 18 | + 2 | 29 | + 5 | 1280* | +114 | 33 | + 3 |
| | 3. ENGLAND, EAST | 5 | 17 | 10 more | 134 | −18 | 19·4 | − 2·4 | 23 | + 2 | 35 | + 6 | 1773 | +283 | 43 | + 7 |
| | 4. MIDLAND COUNTIES | 5 | 13 | 6 more | 132 | −16 | 22·3 | − 1·3 | 18 | 0 | 27 | 0 | 1556 | +315 | 41 | + 8 |
| | 5. ENGLAND, SOUTH | 6 | 21 | 13 more | 116 | −28 | 20·5 | − 3·5 | 21 | + 1 | 32 | + 3 | 1891 | +366 | 47 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 7 | 33 | 20 more | 185 | +12 | 42·1 | + 0·8 | 12 | − 4 | 19 | − 5 | 1299 | + 28 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 6 | 23 | 13 more | 162 | + 1 | 31·1 | + 2·1 | 18 | + 3 | 28 | + 6 | 1533 | +263 | 39 | + 7 |
| | 8. ENGLAND, S.W. | 6 | 23 | 12 more | 147 | −16 | 32.4 | − 0·4 | 17 | − 4 | 26 | − 3 | 1818* | +272 | 46 | + 7 |
| | 9. IRELAND, NORTH | 7 | 17 | 8 more | 191 | + 3 | 30·8 | − 0·2 | 15 | − 3 | 22 | − 5 | 1344 | +169 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 6 | 23 | 13 more | 158 | −11 | 32·6 | + 1·4 | 18 | − 2 | 28 | − 2 | 1519 | +182 | 38 | + 4 |
| | — CHANNEL ISLANDS | 5 | 17 | 8 more | 140 | −31 | 22·7 | − 4·2 | 20 | − 1 | 29 | 0 | 2006 | +301 | 53 | + 7 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was very unsettled and rainy generally, but considerable intervals of clear sky were experienced in the eastern and southern districts. Thunder and lightning occurred on several occasions in the extreme west and north-west.

*Temperature* was again above the mean, the excess ranging from 3° in Scotland N. and Ireland N., to as much as 6° in England E., S.W. and the Midland Counties, and to 7° in England S. The highest of the maxima were recorded, as a rule, towards the end of the week, and ranged, from 66° in the Channel Islands, 65° in Ireland S., and 64° in England N.W., to 60° in Scotland W. The lowest of the minima, which were registered on the 31st, ranged from 30° in England N.W., 31° in Scotland W., and 32° in the Midland Counties, to 38° in England N.E., and 45° in the Channel Islands.

*Rainfall* greatly exceeded the mean over the Kingdom generally, but only just equalled it in England N.E. In most districts the fall was more than twice as great as the mean value. On Friday the fall was very heavy and continuous, amounting to more than an inch in several parts of the Kingdom; the largest at any of our stations, was 1·75 ins. at Southampton, but that at Haslemere is reported to have been as much as 2·1 ins.

*Bright Sunshine* did not differ materially from the mean, the percentage of the possible duration ranging from 35 in England E., and 32 in England S., to 22 in Ireland N., 19 in Scotland W., and 15 in Scotland N.

*Barometer and Wind.*—During the whole of the period depressions, some of them large and deep, skirted our western and northern coasts on their way to Scandinavia. Southerly to South-Westerly winds were consequently very prevalent over our Islands, and often reached the force of a strong breeze or gale in the west and north, and occasionally in the south and east also. On Friday the wind increased to a gale in all parts of the Kingdom and its immediate neighbourhood.

207 | 90 Wy. & S., Ltd.
913 | 70 11 | 99.

# II.—DATA from which the SUMMARY on page 259 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Rainfall. Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches | Inches | * | * | * | * |
| 0. SCOTLAND, N. | Sumburgh Head | 54 | 39 | 50·9 | 42·9 | 46·9 | + 3·4 | 34 | 0 | 7 | 2·17 | + 1·15 | * | * | * | * |
| | Stornoway | 54 | 37 | 50·9 | 39·9 | 45·4 | + 2·2 | 33 | 6 | 7 | 3·88 | + 2·70 | 9·7 | - 6·1 | 16 | - 9 |
| | Wick | 56 | 36 | 50·2 | 39·9 | 45·1 | + 2·1 | 31 | 6 | 7 | 1·11 | + 0·33 | * | * | * | * |
| | Lairg $ | 55 | 34 | 52·3 | 38·8 | 45·6 | + 3·8 | 39 | 9 | 6 | 1·27 | + 0·40 | * | * | * | * |
| | Glencarron $ | 61 | 36 | 53·4 | 42·4 | 47·9 | + 5·4 | 41 | 0 | 7 | 4·34 | + 2·16 | * | * | * | * |
| | Fort Augustus $ | 59 | 36 | 53·1 | 41·5 | 47·3 | + 3·5 | 39 | 1 | 7 | 3·41 | + 2·48 | 7·2 | - 2·2 | 12 | - 2 |
| | Fort William $ | 63 | 38 | 54·3 | 44·1 | 49·2 | + 5·1 | 50 | 0 | 7 | 4·29 | + 2·57 | 4·4‡ | - 9·1 | 7 | -14 |
| 1. SCOTLAND E. | Nairn | 60 | 34 | 55·3 | 39·6 | 47·5 | + 4·9 | 49 | 7 | 5 | 0·88 | + 0·38 | * | * | * | * |
| | Aberdeen | 58 | 33 | 53·9 | 40·7 | 47·3 | + 4·1 | 43 | 4 | 5 | 0·74 | + 0·09 | 20·5 | + 1·1 | 33 | + 4 |
| | Braemar $ | 57 | 33 | 49·7 | 36·9 | 43·3 | + 3·3 | 31 | 14 | 7 | 3·88 | + 2·93 | 13·3† | + 2·8† | 22† | + 5† |
| | Ochtertyre $ | 57 | 33 | 53·4 | 39·6 | 46·5 | + 3·5 | 42 | 7 | 7 | 4·46 | + 3·47 | * | * | * | * |
| | Leith $ | 61 | 38 | 56·4 | 42·6 | 49·5 | + 4·8 | 53 | 0 | 5 | 0·96 | + 0·56 | * | * | * | * |
| | Marchmont $ | 55 | 35 | 52·6 | 39·7 | 46·2 | + 3·8 | 39 | 6 | 6 | 1·03 | + 0·29 | 20·8 | + 4·0 | 33 | + 7 |
| 2. ENGLAND, N.E. | Alnwick Castle | 61 | 39 | 56·0 | 41·3 | 48·7 | + 4·7 | 50 | 2 | 3 | 0·55 | - 0·13 | * | * | * | * |
| | Durham | 61 | 38 | 56·1 | 40·8 | 48·5 | + 5·5 | 51 | 3 | 5 | 0·84 | + 0·16 | 18·3 | + 1·5 | 29 | + 4 |
| | Shields | 61 | 38 | 56·1 | 41·6 | 48·9 | + 4·1 | 50 | 1 | 5 | 0·50 | - 0·08 | * | * | * | * |
| | Scarborough ℳ | 61 | 40 | 56·8 | 42·1 | 49·5 | + 4·3 | 53 | 0 | 4 | 0·46 | - 0·26 | ? | ? | ? | ? |
| | Spurn Head | 60 | 40 | 56·4 | 44·3 | 50·4 | + 4·4 | 59 | 0 | 4 | 0·66 | + 0·11 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 61 | 37 | 57·8 | 42·8 | 50·3 | + 5·8 | 58 | 0 | 6 | 1·76 | + 1·16 | 20·2 | + 2·4 | 31 | + 4 |
| | Yarmouth | 60 | 39 | 56·3 | 45·9 | 51·1 | + 5·1 | 64 | 0 | 5 | 1·37 | + 0·67 | * | * | * | * |
| | Geldeston | 61 | 38 | 58·8 | 44·1 | 51·5 | + 6·0 | 67 | 0 | 5 | 1·63 | + 0·98 | 21·5 | + 1·5 | 33 | + 6 |
| | Cambridge | 63 | 36 | 60·2 | 42·5 | 51·4 | + 6·4 | 66 | 0 | 5 | 1·60 | + 1·08 | 23·9 | + 3·9 | 36 | + 8 |
| | Felixstowe | 60 | 41 | 56·7 | 47·8 | 52·3 | + 6·5 | 72 | 0 | 5 | 1·42 | ? | 28·6 | ? | 43 | ? |
| | Rothamsted | 61 | 35 | 57·3 | 43·9 | 50·6 | + 6·6 | 60 | 0 | 5 | 2·12 | + 1·42 | 22·5 | + 1·5 | 34 | + 4 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 63 | 41 | 57·0 | 43·1 | 50·1 | + 6·2 | 57 | 0 | 4 | 0·72 | + 0·14 | * | * | * | * |
| | Loughborough | 62 | 41 | 58·3 | 44·7 | 51·5 | + 6·5 | 67 | 0 | 4 | 1·05 | + 0·45 | * | * | * | * |
| | Stamford (Ketton) | 62 | 38 | 58·0 | 43·7 | 50·9 | + 6·8 | 62 | 0 | 3 | 1·17 | + 0·57 | * | * | * | * |
| | Cheadle ℳ | 60 | 37 | 55·6 | 42·4 | 49·0 | + 5·5 | 49 | 0 | 5 | 0·89 | + 0·08 | * | * | * | * |
| | Shirley (near Solihull) | 62 | 38 | 57·2 | 43·6 | 50·4 | + 6·8 | 59 | 0 | 6 | 1·10 | ? | * | * | * | * |
| | Churchstoke ℳ | 61 | 40 | 56·6 | 44·3 | 50·5 | + 6·3 | 60 | 0 | 6 | 1·71 | + 0·88 | 18·7 | + 1·0 | 29 | + 4 |
| | Hereford (Belmont) ℳ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 60 | 32 | 56·7 | 42·4 | 49·6 | + 5·6 | 53 | 0 | 4 | 1·90 | + 1·16 | 17·5 | - 2·5 | 26 | - 3 |
| | Oxford | 63 | 40 | 58·4 | 45·1 | 51·8 | + 6·5 | 69 | 0 | 4 | 1·52 | + 0·98 | 21·4 | + 1·7 | 32 | + 4 |
| 5. ENGLAND, S. | London | 62 | 39 | 58·7 | 47·3 | 53·0 | + 6·9 | 77 | 0 | 6 | 2·30 | + 1·68 | 19·3† | + 4·3† | 29† | + 9† |
| | Cranley ℳ | 61 | 37 | 58·1 | 44·3 | 51·2 | + 6·0 | 64 | 0 | 5 | 2·74 | ? | * | * | * | * |
| | Dungeness | 63 | 44 | 60·7 | 51·7 | 56·2 | + 8·2 | 99 | 0 | 6 | 0·53 | - 0·25 | * | * | * | * |
| | Hastings (St. Leonards) | 62 | 40 | 58·7 | 49·2 | 54·0 | + 6·8 | 84 | 0 | 6 | 1·35 | + 0·47 | 22·9 | + 0·9 | 34 | + 1 |
| | Southampton | 62 | 39 | 60·0 | 47·6 | 53·8 | + 6·8 | 83 | 0 | 5 | 3·09 | + 2·29 | 20·4 | - 1·1 | 30 | - 1 |
| | Portland Bill | 59 | 48 | 57·7 | 50·9 | 54·3 | + 6·3 | 86 | 0 | 5 | 2·01 | ? | * | * | * | * |
| | Shaftesbury ℳ | 59 | 38 | 56·2 | 44·4 | 50·3 | + 6·3 | 58 | 0 | 6 | 2·60 | + 1·78 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 60 | 40 | 55·3 | 45·0 | 50·2 | + 5·1 | 57 | 0 | 7 | 3·62 | + 1·82 | * | * | * | * |
| | Glasgow | 59 | 38 | 53·8 | 43·8 | 48·8 | + 4·7 | 48 | 0 | 7 | 2·92 | + 2·04 | 10·0 | - 2·5 | 16 | - 2 |
| | Glenlee $ | 57 | 31 | 54·1 | 42·9 | 48·5 | + 5·0 | 46 | 0 | 7 | 5·14 | + 3·74 | * | * | * | * |
| | Douglas (Isle of Man) | 57 | 41 | 54·0 | 46·1 | 50·1 | + 4·4 | 57 | 0 | 7 | 1·61 | + 0·51 | 14·6 | - 4·2 | 22 | - 7 |
| 7. ENGLAND, N.W. | Newton Reigny | 57 | 37 | 53·3 | 41·4 | 47·4 | + 4·4 | 40 | 2 | 7 | 3·89 | ? | 16·0 | ? | 25 | ? |
| | Stonyhurst | 60 | 42 | 54·2 | 44·5 | 49·4 | + 5·4 | 52 | 0 | 5 | 2·05 | + 0·89 | 16·5 | + 1·7 | 25 | + 3 |
| | Blackpool ℳ | 62 | 41 | 57·1 | 44·9 | 51·0 | + 5·5 | 63 | 0 | 6 | 2·80 | + 1·92 | 16·4 | + 1·0 | 25 | + 2 |
| | Manchester (Prestwich) | 61 | 30 | 55·9 | 42·5 | 49·2 | + 4·6 | 50 | 0 | 6 | 1·35 | + 0·50 | 13·8 | ? | 21 | ? |
| | Liverpool Obsy. (Bidston) | 61 | 43 | 56·6 | 45·6 | 51·1 | + 5·1 | 64 | 0 | 5 | 1·29 | + 0·50 | 18·8 | ? | 29 | ? |
| | Llandudno ℳ | 64 | 45 | 58·4 | 47·9 | 53·2 | + 6·0 | 78 | 0 | 6 | 1·75 | + 0·85 | 22·1 | + 6·4 | 34 | +12 |
| | Holyhead | 58 | 44 | 55·0 | 45·3 | 50·2 | + 2·4 | 57 | 0 | 5 | 2·70 | + 1·69 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 60 | 34 | 57·9 | 43·0 | 50·5 | + 5·5 | 60 | 0 | 6 | 3·25 | + 1·98 | * | * | * | * |
| | Pembroke | 58 | 46 | 56·1 | 50·6 | 53·4 | + 4·6 | 80 | 0 | 6 | 2·02 | + 1·07 | 15·8 | - 3·3 | 24 | - 5 |
| | Clifton | 62 | 42 | 57·9 | 47·0 | 52·5 | + 6·6 | 74 | 0 | 6 | 2·21 | + 1·39 | * | * | * | * |
| | Arlington (N. Devon) | 59 | 42 | 56·3 | 45·7 | 51·0 | + 5·0 | 63 | 0 | 7 | 2·72 | + 1·20 | * | * | * | * |
| | Cullompton ℳ | 61 | 34 | 58·7 | 45·2 | 52·0 | + 7·8 | 70 | 0 | 6 | 1·72 | + 0·83 | 15·0 | - 3·2 | 22 | - 3 |
| | Falmouth | 59 | 44 | 57·8 | 50·2 | 54·0 | + 5·4 | 84 | 0 | 6 | 2·18 | + 0·90 | 20·4 | - 2·8 | 30 | - 4 |
| | Plymouth | 58 | 43 | 57·2 | 49·6 | 53·4 | + 5·1 | 80 | 0 | 5 | 1·72 | + 0·90 | 16·4 | - 4·8 | 24 | - 4 |
| 9. IRELAND, N. | Malin Head | 59 | 38 | 53·4 | 43·9 | 48·7 | + 2·2 | 47 | 0 | 7 | 1·03 | ? | * | * | * | * |
| | Londonderry | 60 | 38 | 54·4 | 42·2 | 48·3 | + 3·5 | 44 | 0 | 6 | 1·34 | + 0·34 | * | * | * | * |
| | Edenfel (Omagh) | 60 | 35 | 52·9 | 40·6 | 46·8 | + 3·6 | 39 | 4 | 6 | 1·24 | + 0·39 | * | * | * | * |
| | Blacksod | 60 | 41 | 55·1 | 43·9 | 49·5 | + 1·5 | 53 | 0 | 7 | 3·10 | ? | * | * | * | * |
| | Markree Castle | 61 | 33 | 54·3 | 40·4 | 47·4 | + 2·9 | 45 | 4 | 7 | 2·03 | + 0·98 | 13·3 | - 4·9 | 20 | - 7 |
| | Armagh | 60 | 37 | 54·1 | 42·6 | 48·4 | + 4·4 | 45 | 0 | 6 | 1·35 | + 0·62 | 15·9 | - 0·3 | 24 | - 2 |
| | Donaghadee | 57 | 37 | 54·3 | 41·9 | 48·1 | + 2·9 | 43 | 0 | 7 | 1·58 | + 0·75 | * | * | * | * |
| 10. IRELAND, S. | Dublin | 65 | 41 | 57·9 | 45·9 | 51·9 | + 5·4 | 69 | 0 | 6 | 1·07 | + 0·34 | 19·9 | - 1·0 | 31 | 0 |
| | Parsonstown | 62 | 38 | 55·3 | 42·6 | 49·0 | + 3·7 | 49 | 0 | 6 | 1·79 | + 1·18 | 18·1 | + 0·3 | 28 | 0 |
| | Kilkenny | 60 | 35 | 55·9 | 41·3 | 48·6 | + 3·4 | 49 | 2 | 7 | 1·80 | + 1·02 | * | * | * | * |
| | Roche's Point | 58 | 43 | 56·7 | 49·0 | 52·9 | + 4·4 | 76 | 0 | 5 | 1·97 | + 0·92 | * | * | * | * |
| | Valencia | 59 | 44 | 56·4 | 47·4 | 51·9 | + 2·9 | 69 | 0 | 7 | 3·10 | + 1·70 | 16·3 | - 4·3 | 25 | - 5 |
| | Killarney | 61 | 37 | 57·0 | 42·2 | 49·6 | + 2·4 | 53 | 0 | 7 | 3·76 | ? | * | * | * | * |
| | Foynes | 62 | 40 | 56·2 | 45·6 | 50·9 | + 4·9 | 62 | 0 | 6 | 2·36 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 60 | 48 | 58·6 | 50·3 | 54·5 | + 3·7 | 88 | 0 | 6 | 2·12 | + 1·32 | 15·1 | ? | 23 | ? |
| | Jersey | 66 | 45 | 61·3 | 52·7 | 57·0 | + 7·0 | 105 | 0 | 4 | 1·33 | + 0·23 | 22·8 | - 1·8 | 34 | 0 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked $ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

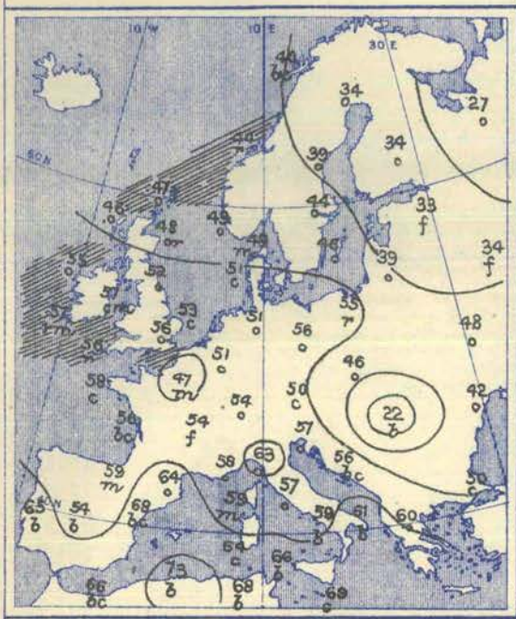
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

‡ The corresponding value in last week's report should read "+0·12."

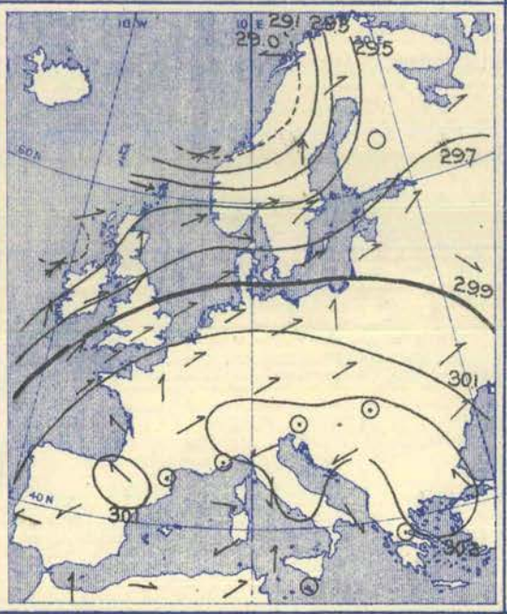
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 29th October.

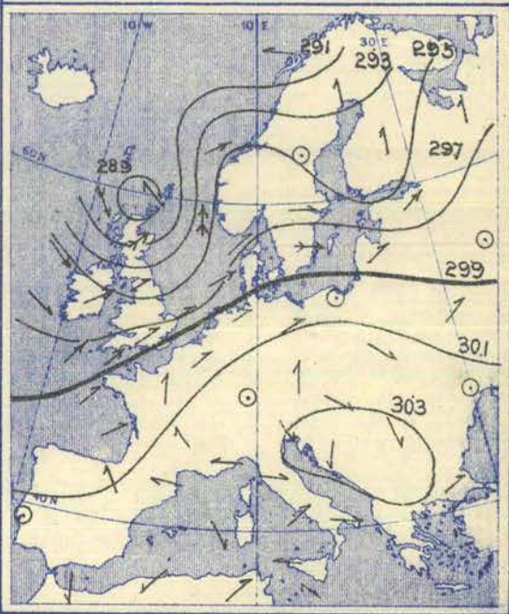
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over north-western, northern and central Europe generally, with rain in Ireland as well as at Aberdeen; fine at some stations in the south of Scandinavia. Fine over the Spanish Peninsula, the west of France, Austria and southern Italy. Rain falling later in most of the north-western and northern countries—heavily at some of our own western stations.

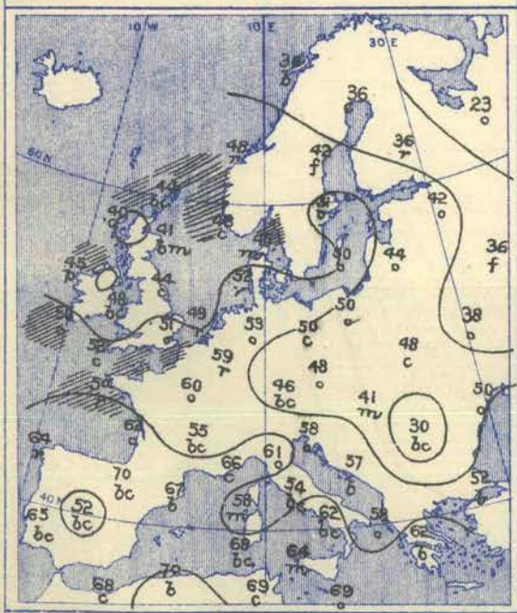
*Temperature* risen over Ireland, England and the northern and central parts of the Continent generally, fallen elsewhere. Morning readings highest, 73° at Algiers, 69° at Palermo and 68° at Barcelona and La Calle; above 66° at the Mediterranean and Spanish coast stations generally, and very little below it on our own south and south-west coasts. Lowest, 22° at Hermanstadt and 36° at Buda Pesth; (2) 27° at Archangel and 33° at Uleaborg and St. Petersburg. Rising during day to 60° or slightly above it at several of our own central and southern stations; exceeding 70° over the Spanish Peninsula, southern Italy and the extreme south of France, and reaching 82° at Sanguinaire.

*Wind* Southerly or South-Westerly over our Islands generally and the neighbouring parts of the Continent, and strong to a gale in force in the west of Ireland. Light to moderate from the South-Westward or Westward in Denmark and Germany, and blowing a gale from the same quarters on the Norwegian coasts; Southerly over Finland and the Gulf of Bothnia. Easterly or South-Easterly over the Spanish Peninsula and the south-west of France; variable in Italy, calm in Austria and also in the extreme south of France. Subsequently increasing to a gale from between South-West and North-West on many parts of our western and extreme northern coasts.

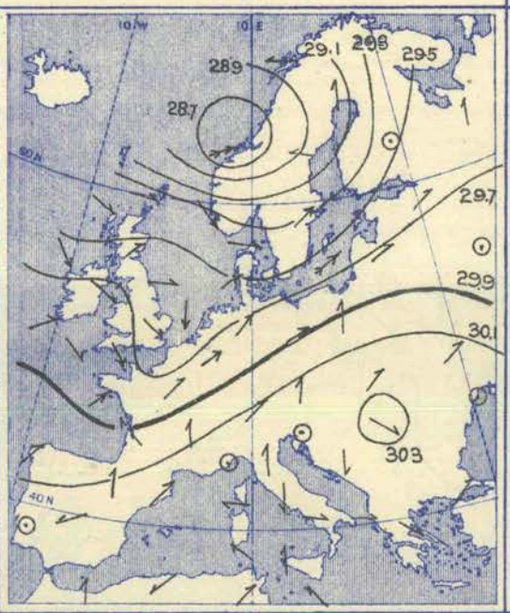
*Barometer* highest, 30·3 ins. and upwards over a considerable part of Austria, Italy and Turkey; 30·1 ins. and upwards in an anticyclone covering the whole of central and southern Europe. Lowest, 29·0 ins. and less in a depression lying off the northern parts of the Norwegian coasts; 29·4 ins. and less in another disturbance lying off the north-west of Ireland. Both depressions moving north-eastwards later—the former to the Arctic ocean, the latter to the extreme north of Scotland; barometer rising again on our own western coasts.

## Monday, 30th October.

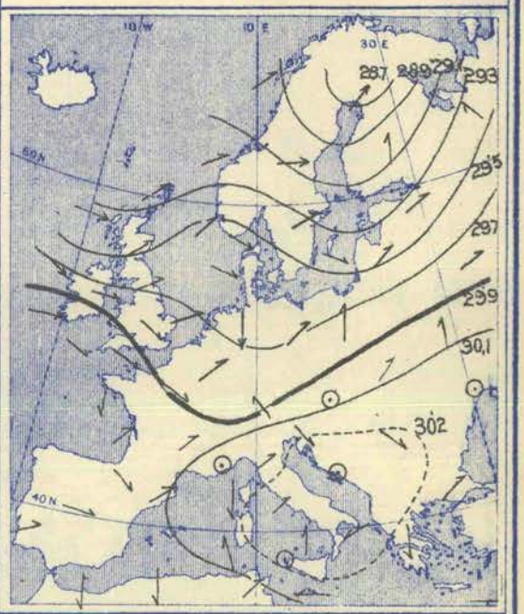
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine in the west and north of our Islands generally; dull over the greater part of England, with rain on our east and south-east coasts. Cloudy or dull over all but the southern parts of the Continent, with rain over the Netherlands as well at Christiansund, Fanö and Kuopio. Weather improving later over England, but heavy showers falling at several of the Irish and Scotch stations. Thunder and lightning occurring over the northern parts of England and Ireland in evening and night.

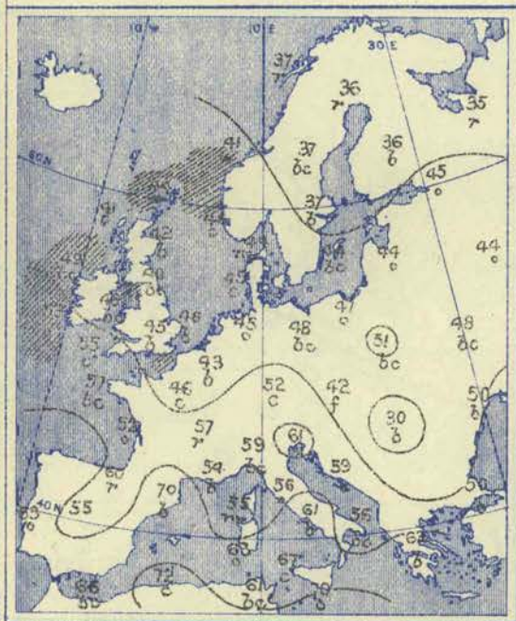
*Temperature* risen over the western and northern parts of the Continent, but fallen elsewhere—briskly over Ireland and central England. Morning readings highest, 70° at Biarritz and Algiers, and 69° at Malta and La Calle, above 65° at several of the Mediterranean stations. Lowest (1) 23° at Archangel and 36° at Haparanda, Uleaborg, Kuopio and Moscow; (2) 30° at Hermanstadt; (3) 39° at Donaghadee and Parsonstown. Daily maxima below 55° in all but the most southern parts of our Islands, and below 50° on our extreme north and north-west coasts. Thermometer exceeding 70° in many parts of southern Europe.

*Wind* moderate to strong from the North-Westward over England and the west and south of Ireland, light to moderate from the Westward in Scotland; strong to a gale from the same quarter in the west of Norway. Light to fresh from the South-Westward or Southward over France, the Netherlands, Germany and Denmark, and strong to a gale from the South-Westward in the south of Sweden. Light and variable over southern and eastern Europe generally. Subsequently backing to the Westward at some of the English stations. Gales subsiding in Norway.

*Barometer* highest, 30·3 ins. and upwards over eastern Austria; 30·1 ins. and upwards in an anticyclone covering nearly the whole of southern and south-eastern Europe. Lowest, 28·7 ins. and less in a deep depression with its centre a little to the north of Christiansund; a series of "V"-shaped secondary disturbances lying over the North Sea and England. Main and secondary disturbances subsequently moving north-eastwards, and barometer rising in nearly all parts of western Europe.

## Tuesday, 31st October.

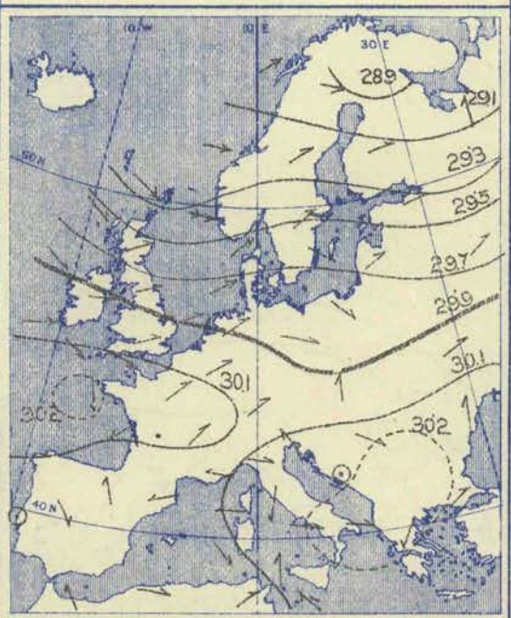
### Temperature and Weather. 8 a.m.

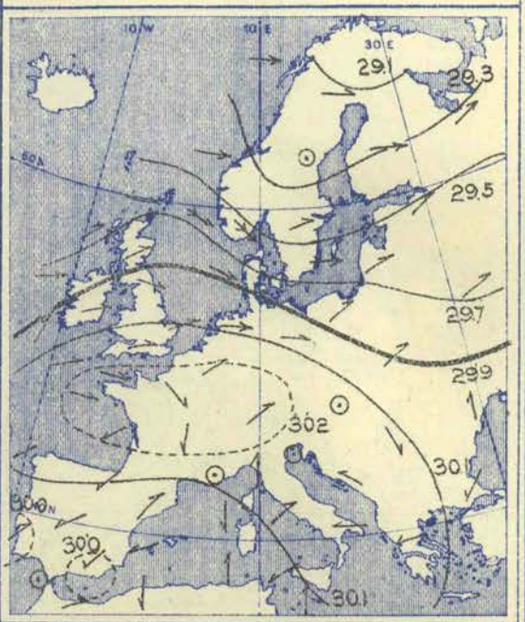


*Weather* in morning fine over the greater part of the United Kingdom, but showery at one or two of our extreme northern and north-western stations. Fine in the Netherlands, Sweden and Finland, but cloudy or dull over the Continent as a whole, with rain in the west of Norway, at Archangel, Uleaborg, and several stations in the central and southern parts of France. Rain falling later in several parts of Ireland and the north of Scotland. Thunderstorm occurring at Memel, and lightning seen at Perpignan.

*Temperature* fallen over England and the western and northern parts of the Continent, but risen elsewhere. Morning readings highest, 72° at Algiers and 70° at Barcelona and Malta; above 60° at most of the Mediterranean and Spanish coast stations. Lowest, 33° at Haparanda, 35° at Archangel, and 36° at Uleaborg and Kuopio; lowest in our Islands, 40° at Nairn, Leith and Shields. Rising during day to 55° and upwards at several of our own central and southern stations, and to 60° at Jersey, exceeding 60° in the west of France, and exceeding 70° in many parts of southern Italy.

### Barometer and Wind. 8 a.m. and 6 p.m.



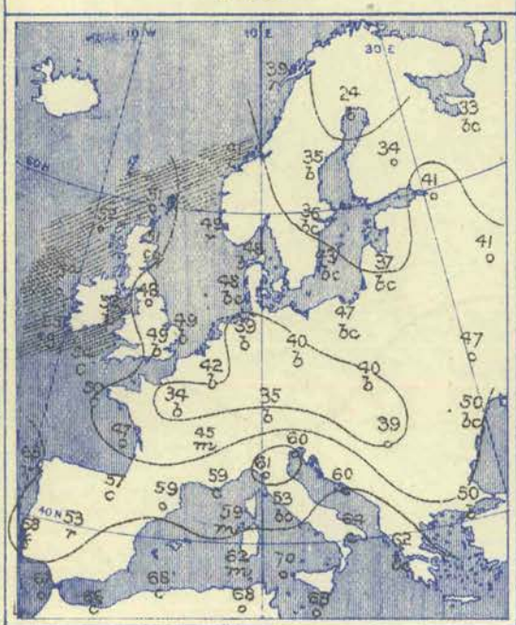


*Wind* fresh to strong from the West in the west and south of our Islands, and from the North-West in the north of Scotland; moderate to fresh from the South-West on the eastern coasts of Great Britain, and also over the Netherlands, Denmark and the greater part of Germany and Scandinavia, but strong to a gale from the West in the west of Norway. Variable over southern Europe generally, but light from South or South-West in the south of Russia. Subsequently backing to South-West or South on our western and northern coasts.

*Barometer* highest, 30·2 ins. and upwards in the north-west of France, and also over Austria and southern Italy. 30·1 ins. and upwards in an anticyclone covering the greater part of central and southern Europe. Lowest, 29·0 ins. and less in a large depression over the extreme northern parts of Russia and Scandinavia. 29·2 ins. and less in a secondary system off the Norwegian coast. New depression approaching our western coasts later, and barometer falling rather decidedly in Ireland.

## Wednesday, 1st November.

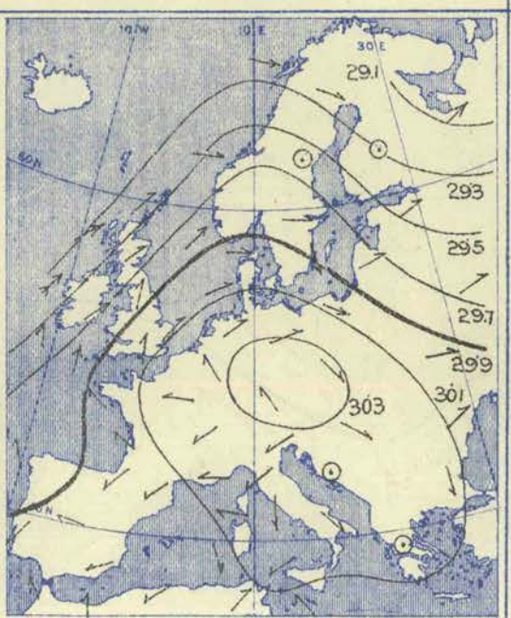
### Temperature and Weather. 8 a.m.

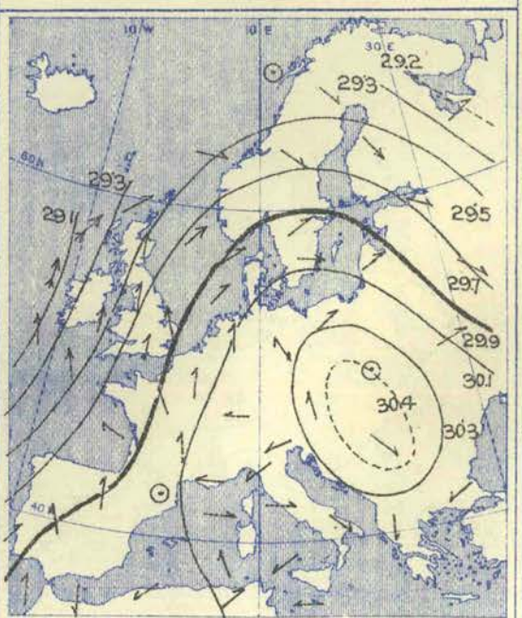


*Weather* in morning fine over England and the central parts of the Continent generally, as well as in Sweden, and in Greece and southern Italy. Cloudy or dull elsewhere, with passing showers at Holyhead, and steady rain at Eodö, Corunna, Madrid and Florence. Rain falling later in the west and extreme north of our Islands generally, as well as in many parts of northern and central Europe. Lightning seen at Biarritz and Perpignan.

*Temperature* risen in our Islands and the west of Norway, but fallen elsewhere. Morning readings highest, 70° at Palermo, and 68° at Palma, Algiers, La Calle and Malta; above 65° at most of the Mediterranean and Spanish coast stations. Lowest, (1) 24° at Haparanda, 31° at Uleaborg, and 33° at Archangel; (2) 34° at Paris and Belfort, and 35° at Munich. Rising during day to between 55° and 59° in most parts of the United Kingdom, exceeding 60° in the west of France, and exceeding 70° over southern Europe generally, the highest readings of all being 81° at Sanguinaire and San Fernando, and 77° at Cagliari.

### Barometer and Wind. 8 a.m. and 6 p.m.



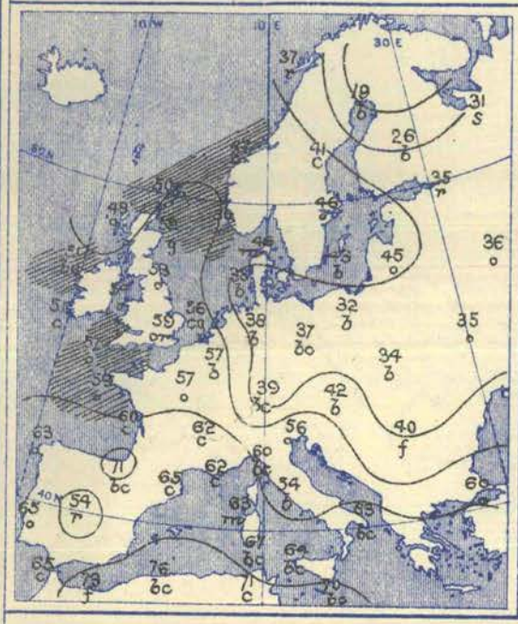


*Wind* Southerly or South-Westerly in our Islands, and strong in force in the west. South-Westerly or Westerly in Norway, Denmark and north Germany. Westerly or North-Westerly over Sweden, the Baltic and western Russia. Light to moderate from the Eastward over France and Spain, Northerly or North-Westerly in Italy. Subsequently increasing to a gale from the Southward on all our own western coasts; veering to the Southward also in France and Spain.

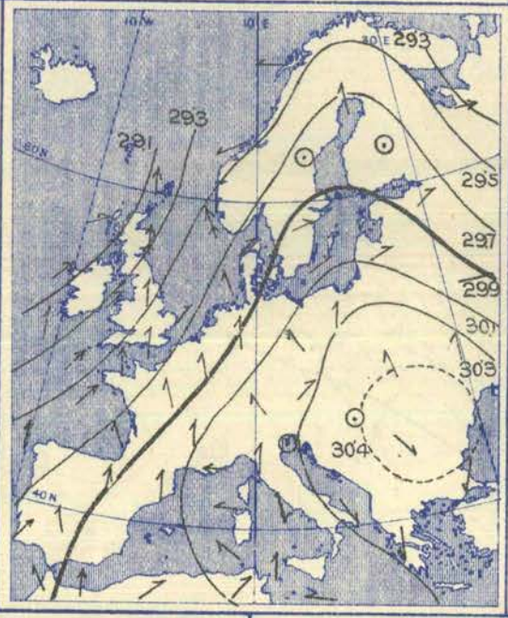
*Barometer* highest, 30·3 ins. and upwards over Germany, 30·0 ins. and upwards in an anticyclone covering the whole of central and southern Europe, and also the south-eastern parts of England. Lowest, 29·1 ins. and less in a depression over the White Sea; 29·3 ins. and less in another disturbance off the north-west of Scotland; gradients steep or rather so over northern and north-western Europe generally, new depression appearing later off the Irish coasts, and barometer falling in all parts of our Islands—quickly in the west.

## Thursday, 2nd November.

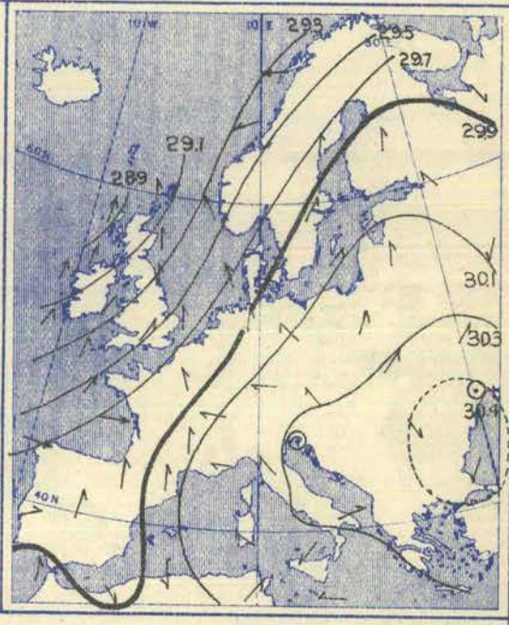
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning cloudy or dull over western and northern Europe generally, with rain or passing showers in many parts of England, as well as at Sumburgh Head, Bodö and Uleaborg; snow falling at Archangel. Fine over the Netherlands, Denmark, Germany, Austria and Italy; dull over the Spanish Peninsula, with rain at Madrid. Rain falling later in nearly all parts of our Islands, France and Spain—heavily in places; lightning occurring at night on our western coasts and thunder also at Blacksod.

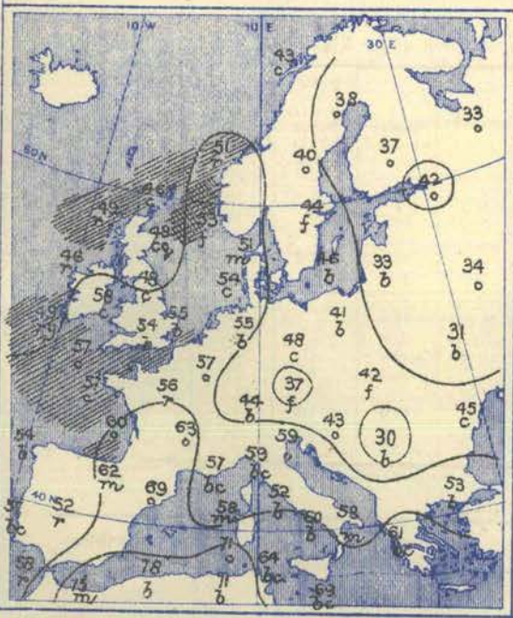
*Temperature* risen over western Europe, rapidly over England and France, but fallen elsewhere. Morning readings highest, 76° to 72° at the Algerian stations, 71° at Biarritz and 70° at Malta; above 60° at the Mediterranean and Spanish coast stations generally, and very little below it in the south and south-east of England. Lowest, 19° at Haparanda, 25° at Uleaborg, 26° at Knopio, and 31° at Archangel. Rising during day to 60° or slightly above it in many parts of Great Britain; exceeding 70° over France and southern Europe and reaching 79° at Palma and Naples, and 82° at Alicante.

*Wind* Southerly over western Europe generally, but South-Westerly on some parts of our western coasts; strong in force in many places, with a gale at Aberdeen and Skudesnaes. Light to moderate from the South-Westward or Westward over Sweden and Russia, and from the South-Eastward in Germany; variable in Austria and Italy. No important change occurring over western Europe during day.

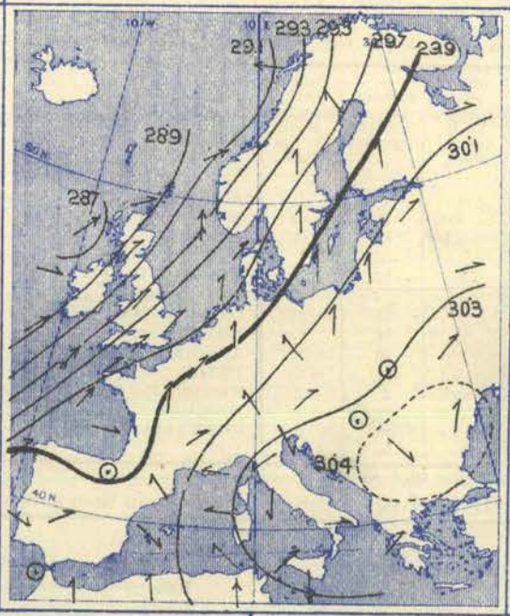
*Barometer* highest, 30·4 ins. and upwards over eastern Austria, 30·1 ins. and upwards in an anticyclone covering the whole of eastern and central, and the greater part of southern Europe. Lowest, 29·0 ins. and less in a depression lying off the north-west of Scotland; 29·4 ins. and less in another disturbance over the extreme north of Russia. Former depression subsequently moving away to the northward, but new disturbance approaching our extreme north-west coasts at night.

## Friday, 3rd November.

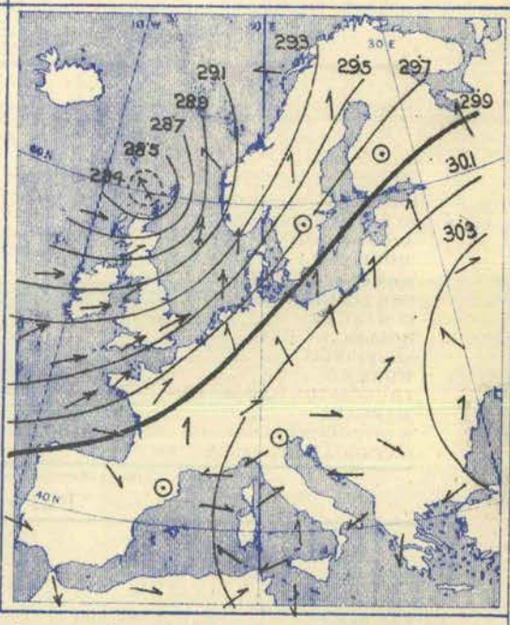
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning fair or fine in the east and south of our Islands as well as in Germany, Denmark and the south of Sweden; fine also in Italy and the extreme south of France. Cloudy or dull elsewhere, with rain in Ireland and the west of Scotland, as well as at Christiansund and in several parts of France and Spain. Heavy rain falling later in many parts of our Islands—as much as 1·1 ins. in London and at Portland Bill. Thunderstorm occurring at Perpignan.

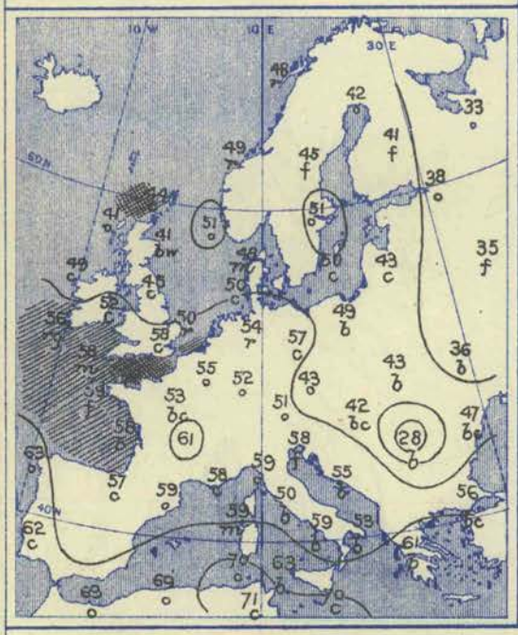
*Temperature* fallen in our Islands but risen at most of the Continental stations. Morning readings highest, 78° at Algiers, 75° at Nemours and 71° at Cagliari and La Calle; above 65° at most of the Mediterranean stations, and above 55° on our own south and south-west coasts. Lowest, 30° at Hermanstadt, 31° at Kiev, 33° at Archangel and 34° at Moscow. Daily maxima below 55° on several parts of our own northern coasts, but thermometer rising to 60° or slightly above it in the south of England; exceeding 65° in the west of France and exceeding 70° in many parts of southern Europe, the highest reading of all being 77° at Sanguinaire, Cagliari and Palermo.

*Wind* Southerly or South-Westerly over north-western and northern Europe generally, and strong to a gale in force on our own western and southern coasts, as well as in the south of Norway. Light to moderate from the Eastward or South-Eastward in Germany and the extreme south of France; variable in Italy; calm in Austria; Westerly over the Spanish Peninsula. Subsequently increasing to a strong gale from the Southward or South-Westward over the whole of our Islands, but moderating considerably in Ireland and Scotland towards evening.

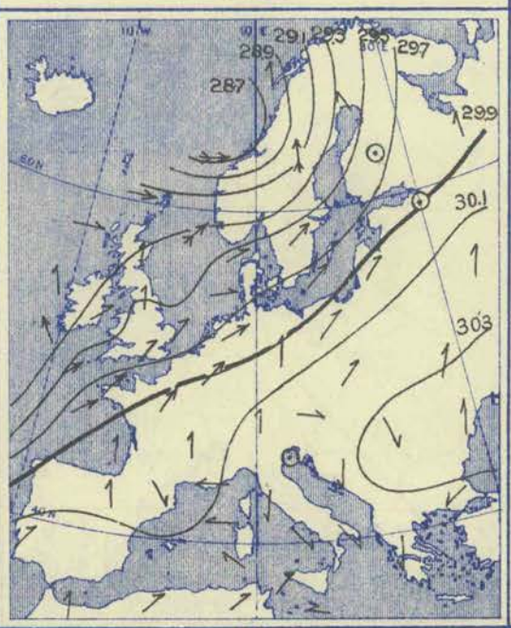
*Barometer* highest, 30·4 ins. and upwards over eastern Austria and the extreme south of Russia; 30·1 ins. and upwards in an anticyclone embracing the whole of eastern, and a considerable portion of southern Europe. Lowest, 28·7 ins. and less in a deep depression with its centre to the westward of Scotland. Depression subsequently travelling quickly north-eastwards; barometer at Sumburgh Head falling by 7 p.m. to a minimum of 28·15 ins. Brisk rise taking place on our own extreme western coasts.

## Saturday, 4th November.

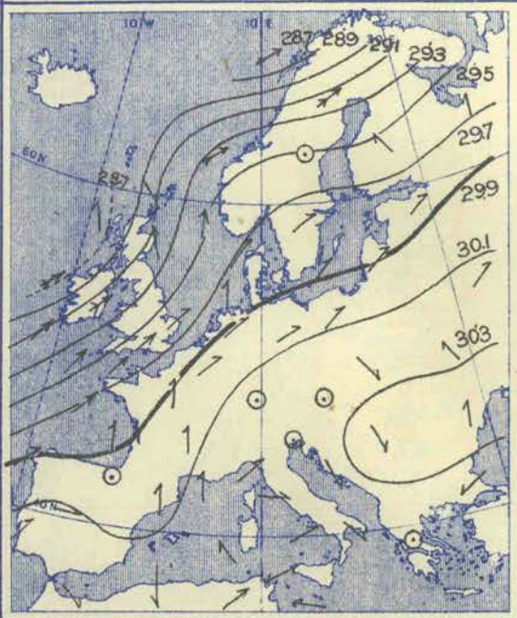
### Temperature and Weather. — 8 a.m.



### Barometer and Wind. — 8 a.m.



### Barometer and Wind. — 6 p.m.



*Weather* in morning cloudy or dull over western, northern and central Europe as a whole with rain in the east of England and also in Norway and Denmark. Fine over all the more northern parts of our Islands and also over southern and south-eastern Europe generally; foggy at several of the Russian and Austrian stations. Rain falling later over the whole of our Islands and the neighbouring parts of the Continent—heavily in places, thunder and lightning occurring at Stornoway.

*Temperature* fallen in the western and southern countries, but risen elsewhere. Morning readings highest, 71° at La Calle, 70° at Cagliari and Malta, and 69° at Algiers; above 60° at the Mediterranean and Spanish coast stations generally and also in the Channel Islands. Lowest, 28° at Hermanstadt, 33° at Archangel and Kharkov, and 35° at Moscow; lowest in our Islands, 41° at Stornoway, Nairn and Aberdeen. Rising during day to 60° and upwards in many parts of the United Kingdom and to 66° at Jersey; exceeding 70° at some stations in the east and south of France.

*Wind* Southerly or South-Westerly over western, northern, and central Europe as a whole, but South-Easterly in the west and south of Ireland and Westerly in the north of Scotland; strong in force on all our own southern coasts, and blowing a gale at some of the Scandinavian stations. Light from the Northward over Italy and Greece, variable in the south of France. Subsequently increasing to a gale from the Southward or South-Westward over nearly the whole of our Islands; no important change occurring elsewhere.

*Barometer* highest, 30·3 ins. and upwards over eastern Austria and the south of Russia; 30·1 ins. and upwards in an anticyclone lying over the whole of eastern and the greater part of central and southern Europe. Lowest, 28·7 ins. and less in a large and deep depression, with its centre off the northern part of the Norwegian coasts; 29·2 ins. and less in another disturbance approaching the west of Ireland. Both depressions moving north-eastwards later—the former away to the Arctic Ocean, the latter to the west and north-west of Scotland.

### GENERAL NOTES.

During the greater part of the week the weather over north-western and northern Europe was affected by large cyclonic systems, the centres of which skirted our own extreme north-western and northern coasts, and afterwards travelled across the northern parts of Scandinavia. The prevailing winds were therefore South-Westerly and often strong to a gale in force, and the weather mild and unsettled, with frequent, and in many cases, heavy falls of rain, and occasional thunder and lightning on the west coasts of Ireland and Scotland. The most important disturbance was that of the 3rd November, when strong gales from South or South-West, and heavy rains occurred over the whole of the United Kingdom. At 7 p.m., when the centre of the depression passed over the Shetlands, the barometer at Sumburgh Head fell to a minimum of 28·15 ins. Over the south of England the gale was followed by a very heavy fall of rain amounting to an inch or more in many places, and to as much as 2·1 ins. at Haslemere.

Temperature was generally high for the time of year, especially during the latter part of the week, when the thermometer exceeded 60° at most of the English stations; at Jersey the maximum of 66° on the 4th was the highest on record for November.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 260.

| STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 11·8 | ? | 20 | ? | BRIGHTON | 20·4 | ? | 30 | ? |
| STRATHPEFFER SPA | 12·2 | − 4·6 | 20 | − 6 | WORTHING | 20·9 | ? | 31 | ? |
| EDINBURGH | 14·6 | − 2·4 | 23 | − 1 | BOGNOR | 23·5* | ? | 35* | ? |
| MORPETH | 20·8 | ? | 33 | ? | EASTBOURNE | 22·7 | + 2·2 | 34 | + 5 |
| NEWCASTLE-ON-TYNE | 15·5 | ? | 24 | ? | VENTNOR HOSPITAL | 19·3 | ? | 29 | ? |
| OSWALDKIRK (Yorkshire) | | | | | SOUTHPORT | 17·1 | ? | 26 | ? |
| LOWESTOFT | 21·3 | ? | 32 | ? | COLWYN BAY | 21·5 | ? | 33 | ? |
| HOLLESLEY BAY | 25·2 | ? | 38 | ? | RHYL | 22·6* | ? | 35* | ? |
| SHEFFIELD | 16·8 | ? | 26 | ? | ABERDOVEY | 19·6* | ? | 30* | ? |
| WORKSOP | 15·9 | + 0·7 | 24 | + 2 | TENBY | 16.3 | − 3·7 | 25 | − 4 |
| THURCASTON (Leicestershire) | 17·4 | + 0·6 | 27 | + 2 | NEWQUAY | | | | |
| MARGATE | 24·0 | + 4·0 | 36 | + 7 | TORQUAY | 18·9 | − 1·1 | 28 | − 1 |
| WESTBOURNE (Emsworth) | 19·5* | − 0·5 | 29* | 0 | GUERNSEY | 20·8* | + 0·3 | 31* | + 1 |
| WATERGATE (Emsworth) | 20·0 | ? | 30 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| DATE OF REPORT. | NAME OF STATIONS. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | ° | ° | ° | | | | | | | |
| Week ending Oct. 7th, 1899 | Colwyn Bay | — | — | — | — | — | — | — | — | — | — | — | 26·8 | ? | 34 | ? |
| ,, ,, ,, ,, | Rhyl | — | — | — | — | — | — | — | — | — | — | — | 29·0 | ? | 37 | ? |
| ,, ,, ,, ,, | Newquay | — | — | — | — | — | — | — | — | — | — | — | 25·4 | − 5·5 | 32 | − 5 |
| ,, ,, ,, 14th, ,, | Churchstoke | 62 | 30 | 58·0 | 36·0 | 46·7 | − 1·1 | 58 | 17 | 3 | 0·37 | −0·41 | 42·6 | +21·6 | 57 | +29 |
| ,, ,, ,, 28th, ,, | Morpeth | — | — | — | — | — | — | — | — | — | — | — | 12·5 | — | 19 | — |
| ,, ,, ,, ,, ,, | Newquay | — | — | — | — | — | — | — | — | — | — | — | 20·0 | − 4·0 | 29 | − 6 |

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W.; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 45.] *Third Series.* WEEK ENDING SATURDAY, NOVEMBER 11TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 266.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 60 | 34 | 50·3 | 39·4 | 44·9 | 3 above | 31 | + 9 | 7 | - 7 | 2250 | +355 | 639 | - 40 |
| | 1. SCOTLAND, EAST | 58 | 28 | 50·4 | 38·0 | 44·3 | 3 above | 33 | + 9 | 11 | - 6 | 2474 | +194 | 711 | - 5 |
| | 2. ENGLAND, N.E. | 62 | 30 | 53·3 | 40·9 | 47·1 | 4 above | 40 | +12 | 3 | - 7 | 2789 | +317 | 466 | -114 |
| | 3. ENGLAND, EAST | 63 | 36 | 55·7 | 44·8 | 50·2 | 6 above | 57 | +23 | 0 | -12 | 3263 | +404 | 443 | -212 |
| | 4. MIDLAND COUNTIES | 60 | 38 | 54·8 | 43·7 | 49·2 | 6 above | 50 | +19 | 0 | -14 | 3233 | +402 | 523 | -148 |
| | 5. ENGLAND, SOUTH | 62 | 39 | 56·8 | 46·9 | 51·9 | 6 above | 69 | +30 | 0 | - 7 | 3679 | +568 | 301 | -201 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 58 | 34 | 52·8 | 41·4 | 47·1 | 4 above | 38 | + 9 | 2 | - 9 | 2630 | +224 | 422 | - 80 |
| | 7. ENGLAND, N.W. | 63 | 35 | 54·0 | 44·4 | 49·2 | 5 above | 50 | +18 | 0 | - 7 | 3031 | +395 | 320 | -163 |
| | 8. ENGLAND, S.W. | 58 | 38 | 55·5 | 46·3 | 50·9 | 5 above | 62 | +19 | 0 | - 4 | 3541 | +618 | 243 | -132 |
| | 9. IRELAND, NORTH | 57 | 35 | 52·0 | 41·7 | 46·9 | 3 above | 36 | + 5 | 1 | - 8 | 2849 | +314 | 326 | - 97 |
| | 10. IRELAND, SOUTH | 59 | 39 | 54·5 | 44·5 | 49·5 | 4 above | 53 | +12 | 0 | - 7 | 3336 | +459 | 250 | - 75 |
| | —CHANNEL ISLANDS | 61 | 46 | 58·1 | 50·0 | 54·1 | 5 above | 85 | +24 | 0 | 0 | 4217 | +859 | 81 | - 67 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 266.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 6 | 21 | 9 more | 197 | -11 | 44·4 | + 3·1 | 7 | - 4 | 13 | - 5 | 1183 | +145 | 29 | + 4 |
| | 1. SCOTLAND, EAST | 6 | 16 | 9 more | 175 | + 5 | 29·2 | + 2·1 | 17 | + 3 | 28 | + 5 | 1301 | + 86 | 32 | + 2 |
| | 2. ENGLAND, N.E. | 5 | 6 | 0 (average) | 151 | - 8 | 21·0 | - 1·5 | 18 | + 1 | 29 | + 3 | 1296* | +110 | 33 | + 3 |
| | 3. ENGLAND, EAST | 5 | 14 | 8 more | 139 | -17 | 20·8 | - 1·6 | 21 | + 3 | 34 | + 5 | 1794 | +286 | 43 | + 7 |
| | 4. MIDLAND COUNTIES | 5 | 11 | 4 more | 137 | -15 | 23·4 | - 0·9 | 17 | + 1 | 26 | + 3 | 1573 | +316 | 40 | + 7 |
| | 5. ENGLAND, SOUTH | 5 | 24 | 17 more | 121 | -27 | 22·9 | - 1·9 | 20 | + 3 | 31 | + 5 | 1911 | +368 | 47 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 7 | 26 | 13 more | 192 | +15 | 44·7 | + 2·1 | 18 | + 4 | 29 | + 7 | 1317 | + 33 | 33 | + 1 |
| | 7. ENGLAND, N.W. | 6 | 12 | 3 more | 168 | + 3 | 32·3 | + 2·4 | 14 | + 3 | 23 | + 6 | 1547 | +266 | 38 | + 6 |
| | 8. ENGLAND, S.W. | 5 | 18 | 7 more | 152 | -16 | 34·2 | + 0·4 | 20 | + 2 | 31 | + 4 | 1838 | +274 | 46 | + 7 |
| | 9. IRELAND, NORTH | 7 | 16 | 7 more | 198 | + 6 | 32·4 | + 0·5 | 21 | + 5 | 34 | + 8 | 1365 | +174 | 34 | + 4 |
| | 10. IRELAND, SOUTH | 6 | 16 | 7 more | 164 | -10 | 35·2* | + 2·2 | 26 | + 8 | 41 | +13 | 1545 | +190 | 38 | + 4 |
| | — CHANNEL ISLANDS | 6 | 20 | 11 more | 146 | -31 | 24·7 | - 3·2 | 21 | - 2 | 32 | - 2 | 2027 | +299 | 53 | + 8 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* continued in a very unsettled condition generally. Rain was frequent and at times very heavy, but several bright intervals were experienced—especially over Ireland and the southern half of England.

*Temperature* was again above the mean, the excess ranging from 3° in Scotland N. and E. and in Ireland N., to 5° or 6° in most of the English districts. The highest of the maxima were registered on somewhat irregular dates, and ranged from 63° in England E. and N.W., to 57° in Ireland N. The lowest of the minima were recorded on the 7th at most of the English and Irish stations, and later in the week in Scotland. They varied from 28° in Scotland E. and 30° in England N.E., to 39° in England S. and Ireland S., and to 46° in the Channel Islands.

*Rainfall*, as during the preceding week, just equalled the mean in England N.E., and exceeded it in all other parts of the Kingdom. In most districts the excess was large, especially in England S. and Scotland W. The largest daily fall was that of Sunday, when 1·64 ins. fell at Cranley, 1·56 ins. at Westbourne (Emsworth), 1·44 ins. in London, and 1·35 ins. at Southampton. In London the fall for the week was almost exactly identical with the mean value for the whole of November.

*Bright Sunshine* was rather in excess of the mean generally. The percentage of the possible duration ranged from 34 in England E. and Ireland N., and 32 in the Channel Islands, to 23 in England N.W., and 13 in Scotland N.

*Barometer and Wind*—The distribution of pressure was very similar to that prevailing during the week immediately preceding. Large and deep depressions passed north-eastwards near or over the north-western and northern parts of the Kingdom, causing mild rainy weather, strong squally winds, and frequent gales from between South and West on all our coasts and the neighbouring parts both of the ocean and north-western Europe.

207 | 90 Wy. & S., Ltd.
913 | 70 11 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 265 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 51 | 35 | 48·3 | 41·3 | 44·8 | + 2·0 | 23 | 2 | 6 | 1·57 | + 0·57 | * | * | * | * |
| | Stornoway | 54 | 34 | 49·6 | 37·9 | 43·8 | + 1·3 | 30 | 11 | 6 | 2·40 | + 1·27 | 11·5 | − 2·1 | 20 | − 3 |
| | Wick | 54 | ?34 | 50·7 | 40·1 | 45·4 | + 3·4 | 32 | 5 | 5 | 0·55 | − 0·20 | * | * | * | * |
| | Lairg ℌ | 54 | 34 | 50·2 | 37·1 | 43·7 | + 2·9 | 32 | 14 | 6 | 0·81 | − 0·03 | * | * | * | * |
| | Glencarron ℌ | 57 | 37 | 49·6 | 40·1 | 44·9 | + 3·5 | 28 | 5 | 7 | 3·57 | + 1·35 | * | * | * | * |
| | Fort Augustus ℌ | 60 | 35 | 50·9 | 38·2 | 44·6 | + 1·9 | 34 | 11 | 7 | 2·69 | + 1·71 | 6·1 | − 0·9 | 10 | − 1 |
| | Fort William ℌ | 58 | 36 | 52·6 | 41·0 | 46·8 | + 3·6 | 38 | 3 | 7 | 3·18 | + 1·40 | 3·4 | − 7·4 | 6 | −11 |
| 1. SCOTLAND E. | Nairn | 58 | 32 | 51·4 | 38·0 | 44·7 | + 3·1 | 36 | 11 | 7 | 0·72 | + 0·23 | * | * | * | * |
| | Aberdeen | 52 | 36 | 49·6 | 40·1 | 44·9 | + 2·6 | 28 | 5 | 4 | 0·31 | − 0·28 | 23·1 | + 6·0 | 39 | +11 |
| | Braemar ℌ | 55 | 28 | 47·5 | 34·4 | 41·0 | + 2·1 | 15 | 31 | 7 | 3·13 | + 2·23 | 7·3† | − 1·2† | 12† | − 2† |
| | Ochtertyre ℌ | 53 | 33 | 49·6 | 38·1 | 43·9 | + 2·1 | 30 | 11 | 6 | 3·18 | + 2·18 | * | * | * | * |
| | Leith | 57 | 38 | 52·6 | 41·1 | 46·9 | + 3·4 | 38 | 3 | 6 | 0·69 | + 0·25 | * | * | * | * |
| | Marchmont ℌ | 58 | 32 | 51·7 | 36·4 | 44·1 | + 2·9 | 38 | 16 | 5 | 1·52 | + 0·75 | 16·8 | + 1·8 | 28 | + 3 |
| 2. ENGLAND, N.E. | Alnwick Castle | 55 | 30 | 52·3 | 39·9 | 46·1 | + 3·3 | 38 | 6 | 4 | 0·80 | + 0·10 | * | * | * | * |
| | Durham | 62 | 31 | 53·2 | 37·0 | 45·1 | + 3·0 | 43 | 14 | 5 | 0·59 | − 0·08 | 20·5 | + 5·5 | 34 | +11 |
| | Shields | 56 | 38 | 53·0 | 41·6 | 47·3 | + 3·5 | 39 | 1 | 5 | 0·47 | − 0·10 | * | * | * | * |
| | Scarborough ℳ | | | | | | | | | | | | | | | |
| | Spurn Head | 57 | 43 | 54·6 | 45·0 | 49·8 | + 4·9 | 55 | 0 | 4 | 0·47 | − 0·07 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 62 | 38 | 55·4 | 44·0 | 49·7 | + 6·5 | 54 | 0 | 5 | 0·96 | + 0·36 | 18·9 | + 3·4 | 30 | + 4 |
| | Yarmouth | 59 | 42 | 54·9 | 45·0 | 50·0 | + 5·3 | 56 | 0 | 6 | 1·24 | + 0·54 | * | * | * | * |
| | Geldeston | 61 | 40 | 56·5 | 45·0 | 50·8 | + 6·3 | 62 | 0 | 6 | 1·38 | + 0·74 | 22·1 | + 4·3 | 35 | +10 |
| | Cambridge | 63 | 38 | 57·2 | 43·6 | 50·4 | + 6·6 | 59 | 0 | 4 | 1·45 | + 0·92 | 21·6 | + 3·9 | 34 | + 7 |
| | Felixstowe | 60 | 43 | 55·0 | 46·9 | 51·0 | + 6·2 | 63 | 0 | 4 | 1·51 | ? | 24·7 | ? | 39 | ? |
| | Rothamsted | 59 | 36 | 55·0 | 44·0 | 49·5 | + 6·5 | 53 | 0 | 7 | 1·83 | + 1·13 | 18.2 | + 0·2 | 29 | + 1 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 57 | 39 | 54·3 | 42·9 | 48·6 | + 5·8 | 46 | 0 | 5 | 0·68 | + 0·10 | * | * | * | * |
| | Loughborough | 59 | 41 | 55·4 | 45·0 | 50·2 | + 6·2 | 57 | 0 | 5 | 1·03 | + 0·43 | * | * | * | * |
| | Stamford (Ketton) | 60 | 39 | 55·3 | 44·3 | 49·8 | + 6·6 | 55 | 0 | 4 | 0·58 | − 0·02 | * | * | * | * |
| | Cheadle ℳ | 60 | 38 | 53·7 | 41·8 | 47·8 | + 5·4 | 41 | 1 | 5 | 1·06 | + 0·25 | * | * | * | * |
| | Shirley (near Solihull) | 57 | 41 | 54·2 | 43·8 | 49·0 | + 6·4 | 49 | 0 | 6 | 1·24 | ? | * | * | * | * |
| | Churchstoke ℳ | 60 | 40 | 55·1 | 42·8 | 49·0 | + 6·0 | 49 | 0 | 5 | 1·14 | + 0·32 | 21·9 | + 6·5 | 35 | +12 |
| | Hereford (Belmont) ℳ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 59 | 40 | 54·7 | 43·7 | 49·2 | + 6·3 | 50 | 0 | 6 | 1·34 | + 0·62 | 16·3 | − 1·3 | 26 | − 1 |
| | Oxford | 58 | 42 | 55·4 | 45·1 | 50·3 | + 6·2 | 58 | 0 | 5 | 1·42 | + 0·88 | | | | |
| 5. ENGLAND, S. | London | 59 | 42 | 56·1 | 46·4 | 51·3 | + 6·3 | 65 | 0 | 5 | 2·32 | + 1·72 | 15·4† | + 2·4† | 24† | + 6† |
| | Cranley ℳ | 60 | 40 | 53·2 | 46·2 | 51·2 | + 6·8 | 64 | 0 | 4 | 3·08 | ? | * | * | * | * |
| | Dungeness | 61 | 39 | 58·9 | 49·1 | 54·0 | + 7·3 | 84 | 0 | 6 | 1·56 | + 0·78 | * | * | * | * |
| | Hastings (St. Leonards) | 60 | 42 | 57·3 | 46·5 | 51·9 | + 5·9 | 69 | 0 | 6 | 2·61 | + 1·77 | 21·7 | + 2·2 | 34 | + 3 |
| | Southampton | 62 | 40 | 58·2 | 46·4 | 52·3 | + 6·5 | 72 | 0 | 5 | 2·63 | + 1 87 | 19·4 | + 1 3 | 30 | + 2 |
| | Portland Bill | 58 | 46 | 56·4 | 49·4 | 52·9 | + 5·8 | 76 | 0 | 5 | 2·49 | ? | * | * | * | * |
| | Shaftesbury ℳ | 56 | 41 | 54·6 | 44·2 | 49·4 | + 6·4 | 52 | 0 | 7 | 2·25 | + 1·40 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 58 | 34 | 53·2 | 40·3 | 46·8 | + 2·8 | 41 | 5 | 7 | 2·98 | + 1·08 | * | * | * | * |
| | Glasgow | 56 | 39 | 51·0 | 42·1 | 46·3 | + 3·6 | 32 | 0 | 7 | 1·98 | + 1·10 | 11·3 | + 1·1 | 19 | + 3 |
| | Glenlee ℌ | 58 | 34 | 52·9 | 38·4 | 45·7 | + 3·7 | 41 | 10 | 6 | 4·80 | + 3·35 | * | * | * | * |
| | Douglas (Isle of Man) | 57 | 37 | 53·9 | 44·8 | 49·4 | + 4·5 | 52 | 0 | 6 | 0·71 | − 0·39 | 23·8 | + 6·8 | 39 | +12 |
| 7. ENGLAND, N.W. | Newton Reigny | 59 | 35 | 52·4 | 39·3 | 45·9 | + 4·4 | 39 | 8 | 6 | 2·49 | ? | 15·7 | ? | 26 | ? |
| | Stonyhurst | 59 | 41 | 52·6 | 43·8 | 48·2 | + 5·2 | 43 | 0 | 6 | 1·19 | + 0·09 | 15·6 | + 2·8 | 26 | + 6 |
| | Blackpool ℳ | 56 | 41 | 53·4 | 45· | 49·2 | + 5·0 | 50 | 0 | 6 | 0 86 | + 0·03 | 16 4 | + 3·3 | 27 | + 7 |
| | Manchester (Prestwich) | 61 | 40 | 54·4 | 43·7 | 49·1 | + 5·6 | 50 | 0 | 6 | 0·81 | − 0·02 | 6·7 | ? | 11 | ? |
| | Liverpool Obsy. (Bidston) | 57 | 43 | 54·1 | 45·4 | 49·8 | + 5·0 | 55 | 0 | 6 | 0·43 | − 0·25 | 15·1 | ? | 24 | ? |
| | Llandudno ℳ | 63 | 45 | 56·8 | 47·0 | 51·9 | + 5·6 | 69 | 0 | 6 | 0·92 | + 0·07 | 15·4 | + 1·4 | 25 | + 4 |
| | Holyhead | 56 | 45 | 54·1 | 46·3 | 50·2 | + 3·2 | 57 | 0 | 6 | 1·82 | + 0·85 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 56 | 38 | 55·3 | 41·7 | 48·5 | + 4·5 | 47 | 1 | 7 | 1·92 | + 0·67 | * | * | * | * |
| | Pembroke | 56 | 45 | 55·4 | 49·6 | 52·5 | + 4·6 | 74 | 0 | 6 | 1·35 | + 0·40 | 15·5 | − 1·5 | 25 | − 1 |
| | Clifton | 57 | 47 | 55·3 | 47·8 | 51·6 | + 7·1 | 67 | 0 | 6 | 1·73 | + 0·91 | * | * | * | * |
| | Arlington (N. Devon) | 56 | 42 | 53·9 | 45·1 | 49·5 | + 4·7 | 53 | 0 | 6 | 2·54 | + 1·04 | * | * | * | * |
| | Cullompton ℳ | 58 | 40 | 56·6 | 44·4 | 50·5 | + 6·5 | 60 | 0 | 4 | 1·92 | + 1·05 | 16·0 | 0·0 | 25 | 0 |
| | Falmouth | 58 | 47 | 56·0 | 48·2 | 52·1 | + 4·1 | 71 | 0 | 5 | 1·43 | + 0·15 | 24·3 | + 3·7 | 38 | + 7 |
| | Plymouth | 58 | 44 | 56·3 | 47·5 | 51·9 | + 4·5 | 69 | 0 | 4 | 1·83 | + 0·99 | 18·5 | 0·0 | 29 | 0 |
| 9. IRELAND, N. | Malin Head | 56 | 40 | 51·7 | 43·3 | 47·5 | + 2·1 | 39 | 0 | 7 | 0·95 | ? | * | * | * | * |
| | Londonderry | 56 | 38 | 51·9 | 40·3 | 46·1 | + 2·4 | 36 | 5 | 7 | 1·61 | + 0·61 | * | * | * | * |
| | Edenfel (Omagh) | 54 | 35 | 50·7 | 39.3 | 45·0 | + 2·7 | 32 | 8 | 7 | 1·40 | + 0·57 | * | * | * | * |
| | Blacksod | 55 | 42 | 53·1 | 43·3 | 48·2 | + 1·5 | 43 | 0 | 7 | 3·02 | ? | * | * | * | * |
| | Markree Castle | 57 | 41 | 51·7 | 42·1 | 46·9 | + 3·4 | 34 | 0 | 7 | 2·13 | + 1·13 | 19·1 | + 2·5 | 31 | + 5 |
| | Armagh | 56 | 38 | 52·4 | 41·4 | 46·9 | + 3·9 | 37 | 2 | 7 | 1·28 | + 0·58 | 21·3 | + 6·8 | 36 | +11 |
| | Donaghadee | 56 | 40 | 52·6 | 42·4 | 47·5 | + 2·8 | 39 | 0 | 6 | 0·76 | − 0·04 | * | * | * | * |
| 10. IRELAND, S. | Dublin | 59 | 43 | 55·0 | 44·8 | 49·9 | + 4·2 | 55 | 0 | 5 | 0·84 | + 0·16 | 31·3 | +12·3 | 50 | +20 |
| | Parsonstown | 58 | 41 | 53·1 | 43·0 | 48·1 | + 3·7 | 43 | 0 | 7 | 1·09 | + 0·47 | 23·6 | + 7·2 | 38 | +11 |
| | Kilkenny | 57 | 39 | 54·0 | 42·3 | 48·2 | + 3·5 | 43 | 0 | 5 | 1·39 | + 0·66 | * | * | * | * |
| | Roche's Point | 57 | 41 | 55·1 | 44·6 | 49·9 | + 2·2 | 55 | 0 | 5 | 1·32 | + 0·23 | * | * | * | * |
| | Valencia | 58 | 42 | 55·0 | 46·9 | 51·0 | + 2·8 | 63 | 0 | 5 | 2·18 | + 0·80 | 22.0 | + 3·5 | 35 | + 7 |
| | Killarney | 58 | 42 | 55·6 | 45·6 | 50·6 | + 4·5 | 60 | 0 | 6 | 2·79 | ? | * | * | * | * |
| | Foynes | 57 | 42 | 54·0 | 44·2 | 49·1 | + 4·0 | 50 | 0 | 6 | 1·40 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 60 | 47 | 58·3 | 48·6 | 53·5 | + 3·5 | 81 | 0 | 5 | 1·12 | + 0·29 | 27·3 | ? | 43 | ? |
| | Jersey | 61 | 46 | 57·9 | 51·3 | 54·6 | + 5·5 | 88 | 0 | 6 | 2·92 | + 1·84 | 19·1 | − 2·2 | 29 | − 2 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked ℌ with the Scottish Meteorological Society.

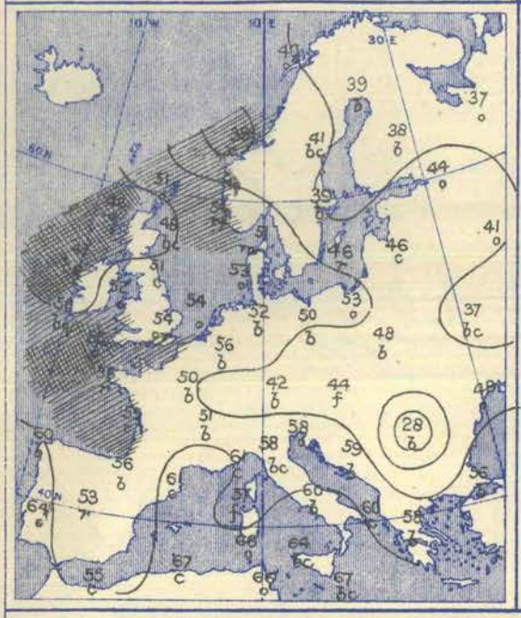
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 5th November.

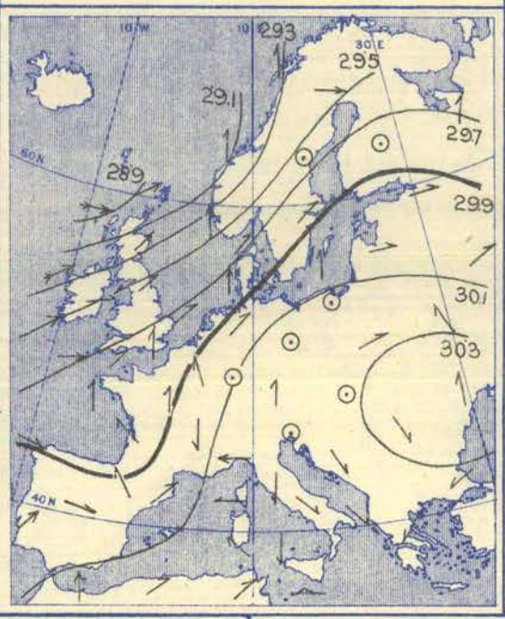
### Temperature and Weather. 8 a.m.

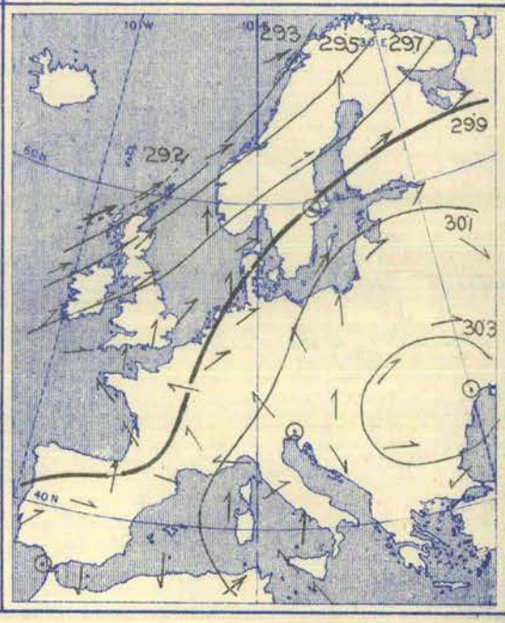


*Weather* in morning fine over south-eastern and southern Europe, as well as over France and in Finland; dull and very unsettled over our Islands and Norway, with rain at many of the northern stations. Much rain later over the southern parts of England (1·4 ins. in London) and in France; smaller quantities both in Denmark and at Bodö. Heavy rain (2·95 ins.) at Nice.

*Temperature* rising in some parts of Ireland and Scotland. Morning readings highest, 67° at Algiers, 61° at Nice, 58° at Dungeness, 55° at Brest, Jersey, and Scilly, 50° in the south of Ireland. Lowest, (1) 37° at Archangel, 38° at Kuopio, and also at Kharkov, 39° at Haparanda; (2) 44° at Parsonstown, 45° at Nairn. Rising later to above 50° almost all over our Islands, to 60° at Scilly, 59° at Yarmouth, 66° at Berlin and Brussels, 68° at Paris and Rochefort, and to 69° in some parts of Spain.

### Barometer and Wind. 8 a.m. and 6 p.m.



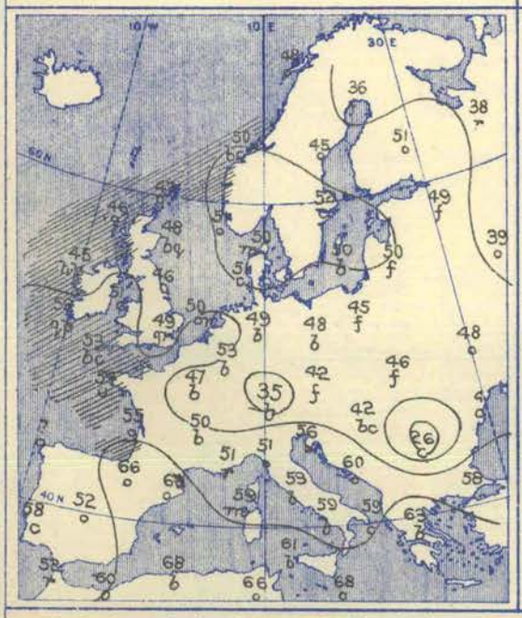


*Wind*, as a whole, light and variable over the eastern and southern parts of Europe; South-Westerly over our Islands and the north-western countries, and blowing a gale at the extreme north-western stations. Increasing in force somewhat in the west and north of the United Kingdom, and over Scandinavia.

*Barometer* in morning highest, 30·3 ins. and more over the south of Russia, Moldavia, and Bulgaria, and exceeding 30·0 ins. all over south-eastern Europe and the east and south of France. Lowest, below 28·9 ins. over the Hebrides, and below 29·1 ins. all over the north of Scotland. Gradients steep over the northern and western stations. Rising in our Islands later, especially in the west and north.

## Monday, 6th November.

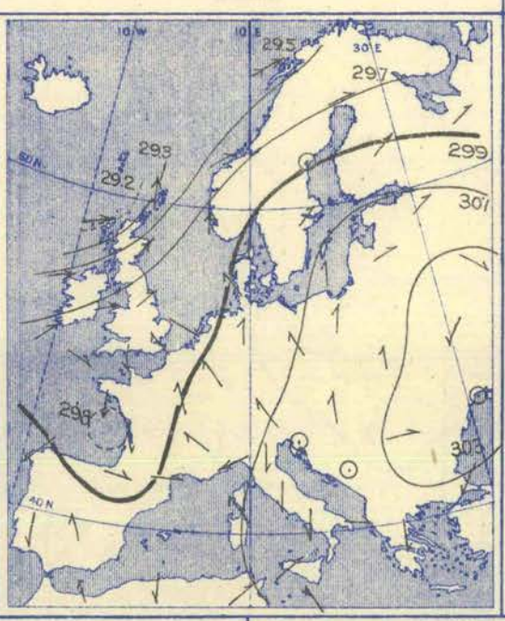
### Temperature and Weather. 8 a.m.

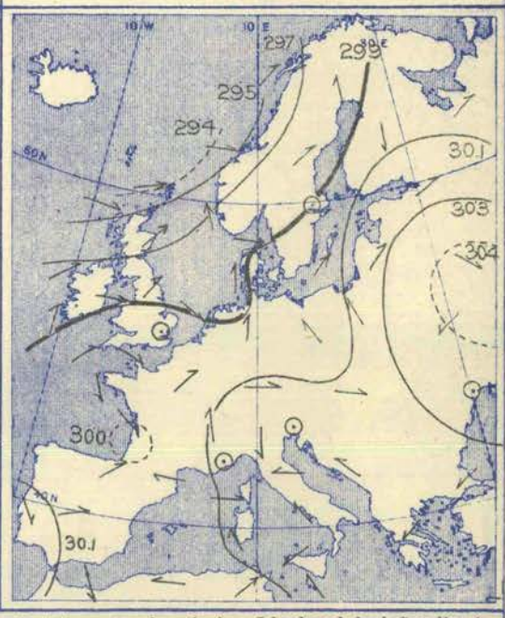


*Weather* in morning fine in the west and north of our Islands generally, but showery in the west of Ireland; dull over the greater part of England, with rain at some of the eastern and south-eastern stations. Cloudy or dull in Russia and Scandinavia, with rain at Archangel; dull also over Spain, northern Italy and the west and south of France, with rain at Nice and San Fernando; fine in most other parts of the Continent. Weather improving later over England, but rain setting in at night over Ireland and the west of Scotland.

*Temperature* fallen in most places. Morning readings highest, 68° at Malta and Algiers, and 66° at Biarritz and Tunis; above 60° at most of the Mediterranean stations. Lowest, (1) 26° at Hermanstadt, and 33° at Nicolaieff; (2) 36° at Haparanda, and 38° at Archangel; lowest in our Islands, 45° at several of our north-western stations. Rising during day to 55° and upwards in most parts of Ireland and England, and to 59° at Jersey; exceeding 65° over the central and southern parts of France.

### Barometer and Wind. 8 a.m. and 6 p.m.





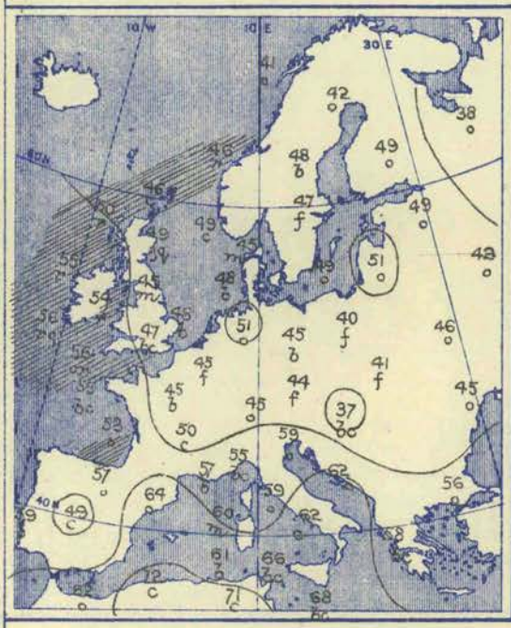
*Wind* Southerly or South-Westerly in the west and north of our Islands and also in Scandinavia and northern Russia; strong in force on some parts of our extreme north and north-west coasts. Variable in the south-east of England; Northerly or North-Westerly over Brittany and the western parts of the English Channel, Southerly or South-Easterly over central France, Germany, Denmark and the Netherlands. Calm or variable over Austria and the south of Russia; Northerly or North-Westerly in Italy and Greece. No important change occurring over western Europe during day.

*Barometer* highest, 30·3 ins. over eastern Austria and the central and southern parts of Russia, 30·1 ins. and upwards in an anticyclone covering nearly the whole of eastern and central Europe. Lowest, 29·2 ins. and less in a rather deep depression off the north-west of Scotland, 29·8 ins. and less in two shallow systems lying respectively over the Bay of Biscay, and over the eastern parts of the English Channel. Scotch depression subsequently moving away to the north, smaller disturbances in the south entirely filling up.

## Tuesday, 7th November.

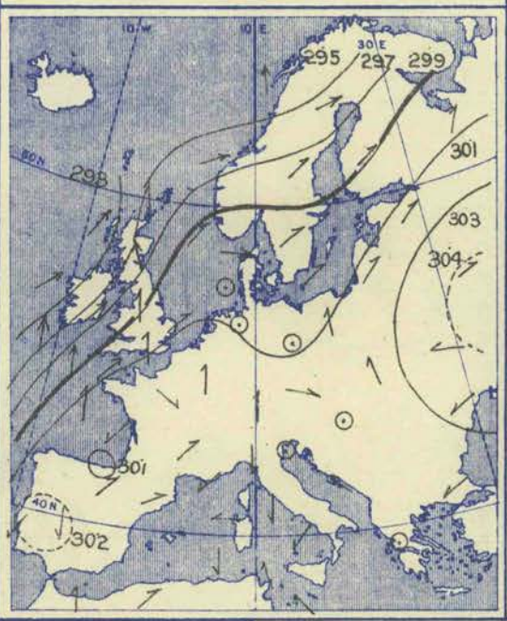
### Temperature and Weather.

#### 8 a.m.

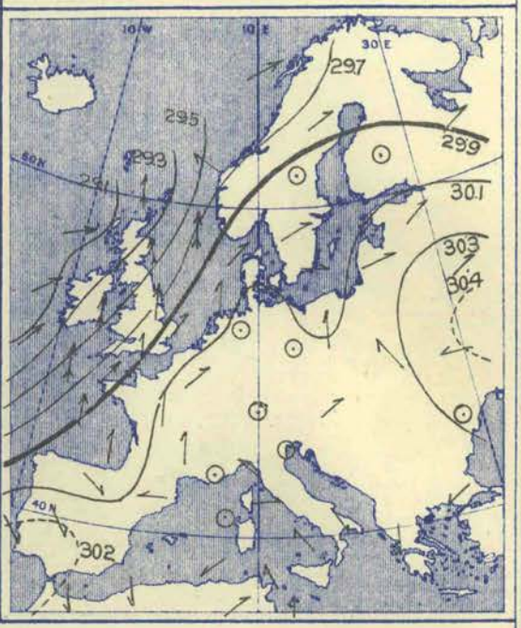


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning dull, but fair over Russia, south-eastern and southern Europe, Germany, France, and the south-east of England; rainy and very unsettled in Ireland, the west of Scotland, and the west of Norway. Much rain later over Ireland, the west of Scotland, and the south-west of England (with Brittany); smaller quantities in other parts of our Islands and in Norway; lightning at many western stations.

*Temperature* in morning highest, 72° at Algiers, 71° at La Calle, 62° at Naples and Lesina; 56° at Bilbao, Scilly, and Valencia; and above 50° on all our western coasts, 51° at Cuxhaven and Münster. Lowest, (1) 28° at Archangel, 42° at both Haparanda and Moscow; (2) 45° at Loughborough and Shields, as well as at Paris and Munich. Rising later to above 50° all over our Islands, and to 58° at Parsonstown, and 59° at Scilly, and to 64° at Lorient, Lyons, and Nice.

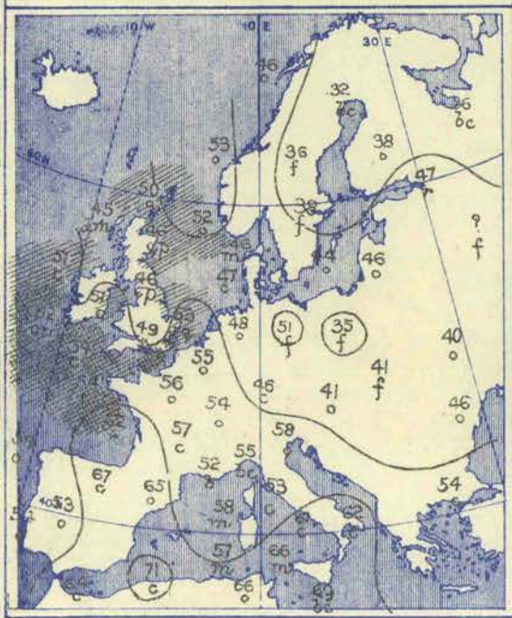
*Wind* remaining light and variable over the major part of eastern and southern Europe; strong and unsettled in the north-west. A gale reported from the Southward in Ireland and at Scilly, and strong squally winds in many parts of northern and north-western Europe. The gale in our Islands extending Eastwards later.

*Barometer* highest, 30·4 ins. and more over the southern parts of central Russia, and exceeding 30·0 ins. over all the eastern and southern countries. Lowest, 29·3 ins. and less off the north-west of our Islands, and below 29·4 ins. over Finmark. Depression in the north-west moving north-eastwards later, and spreading south-eastwards over the United Kingdom.

## Wednesday, 8th November.

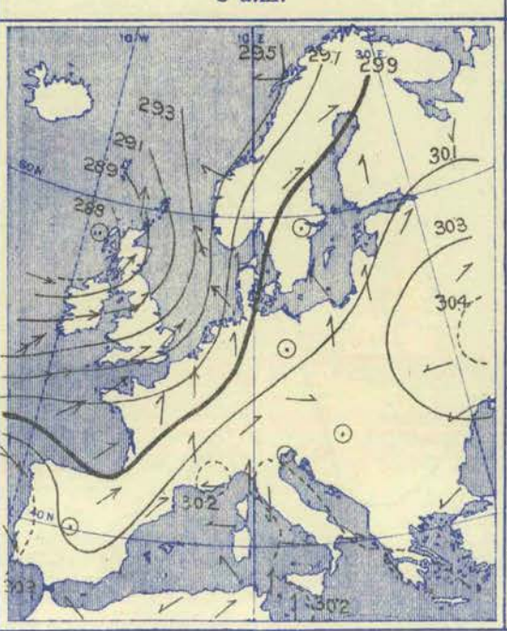
### Temperature and Weather.

#### 8 a.m.

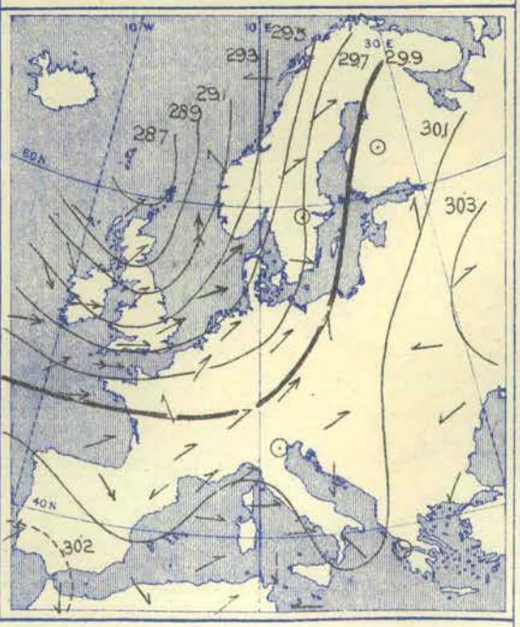


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fine over the greater part of England and Ireland, but showery in Scotland. Cloudy or dull over the greater part of the Continent, with fog at many of the northern, central and eastern stations, and rain in the west and north of France, as well as on the extreme south-east coasts of England. Fine in the extreme south of France and northern Italy, as well as in Greece. Rain falling later over western and northern Europe generally; lightning seen at several of the English stations.

*Temperature* risen over England and the western parts of the Continent, fallen elsewhere. Morning readings highest, 71° at Algiers, 69° at Malta, and 67° at Biarritz and Bilbao; above 60° at most of the Mediterranean stations. Lowest, 32° at Uleaborg, 35° at Cracow, and 36° at Archangel, Haparanda and Hernösand; rising during day to 55° and upwards at most of our own central and southern stations; exceeding 65° in the south of France, and reaching 72° at Perpignan.

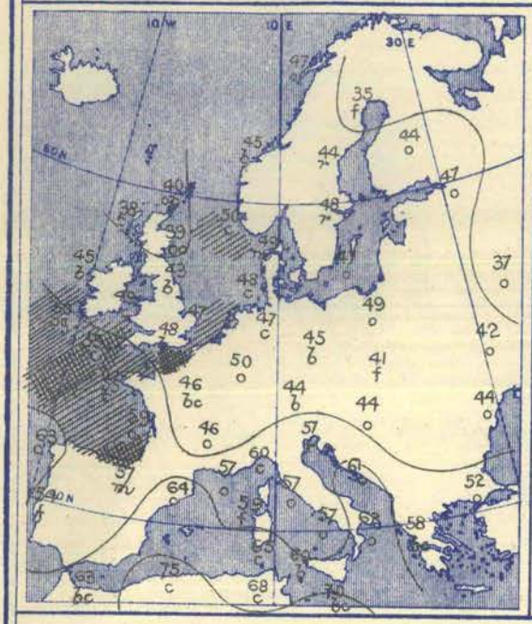
*Wind* South-Westerly over our Islands and the north and west of France, and strong to a gale in force on our western and southern coasts; Southerly or South-Easterly over central France, the Netherlands, Germany, Denmark and Scandinavia, with a whole gale at Skudesnaes. Variable over southern Europe generally, but light from the Eastward or North-Eastward over Turkey, Greece and the south of Russia; calm in Austria. Subsequently veering to the Westward or North-Westward on our own western coasts. No important change occurring elsewhere.

*Barometer* highest, 30·4 ins. and upwards in the south of Russia; 30·2 ins. and upwards in Portugal; 30·1 ins. and upwards in an anticyclone covering the greater part of eastern, central and southern Europe. Lowest, 28·8 ins. and less in a large and deep depression, with its centre to the westward of Scotland; gradients steep over north-western Europe generally. Depression subsequently travelling north-eastwards, and barometer rising off all our western and southern coasts.

## Thursday, 9th November.

### Temperature and Weather.

#### 8 a.m.

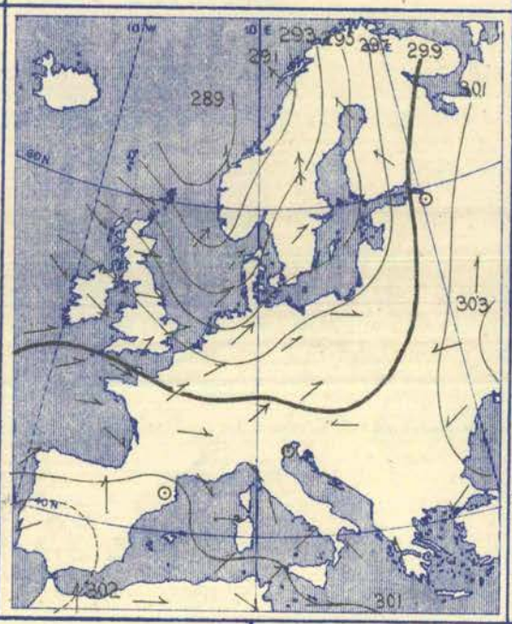


*Weather* in morning fair over France, and temporarily fine over the greater part of our Islands, rainy and unsettled over the Baltic and northern Europe, with hail squalls at Wick and rain showers at Malin Head. Rain later over the whole of our Islands and the northern parts of France, heaviest in the south-west and south of our area; showers over Germany.

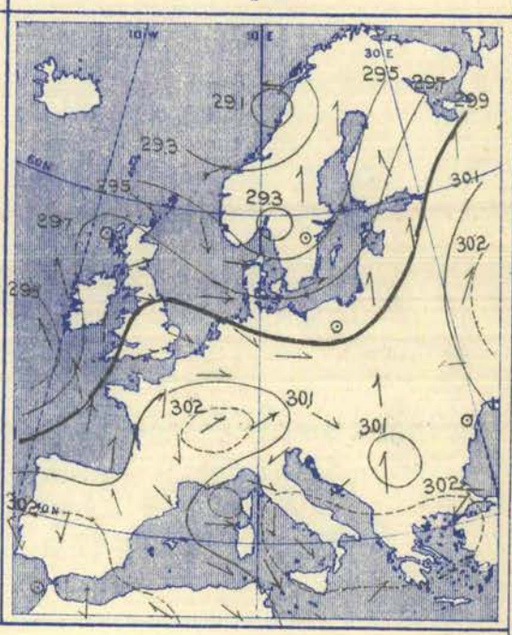
*Temperature* fallen over western Europe generally. Morning readings highest, (1) 75° at Algiers, 70° at Malta, 64° at Barcelona, 62° at Brindisi; (2) 59° at Rochefort, 55° at Jersey and 50° to 53° on our south and south-west coasts. Lowest, (1) 35° at Haparanda, 37° at Moscow, 40° at Kharkov; (2) 38° at Stornoway, 39° at Nairn and Aberdeen, 40° at Leith. Rising later to 50° and more over Ireland and England to 57° at London, Portland Bill and Valencia, 59° at Jersey and Dungeness and to 66° at Belfort and 64° at Nice, 68° at Leghorn and Lisbon, 79° at Palermo, 86° at Algiers.

### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



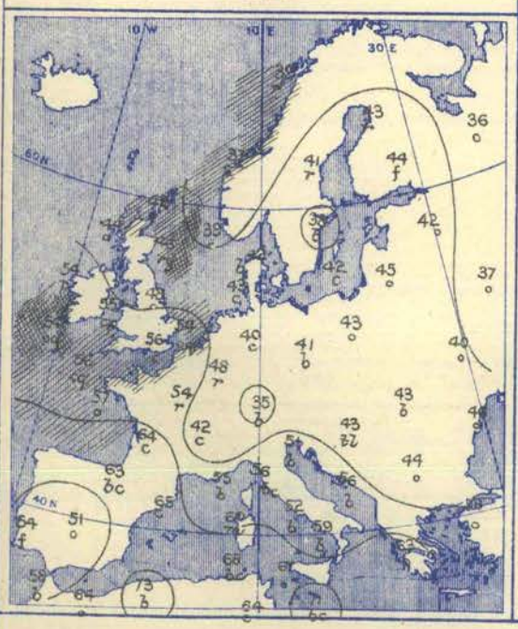
*Wind* (1) very light and variable over all the southern and south-eastern parts of Europe; (2) Southerly to South-Westerly, a gale in places, over northern Europe and the Baltic, Westerly to North-Westerly over the British Isles (a gale in places), but tending to back towards South-West again at the western stations. Southerly and South-Westerly gales and rain over the greater part of the Kingdom later.

*Barometer* in morning highest, 30·25 ins. at Lisbon, 30·15 ins. at Limoges, and exceeding 29·9 ins. over almost the whole of south-western, southern and eastern Europe. Lowest, below 29·0 ins. in a depression over and off the western parts of Norway. A new deep depression advancing to Ireland later.

## Friday, 10th November.

### Temperature and Weather.

#### 8 a.m.

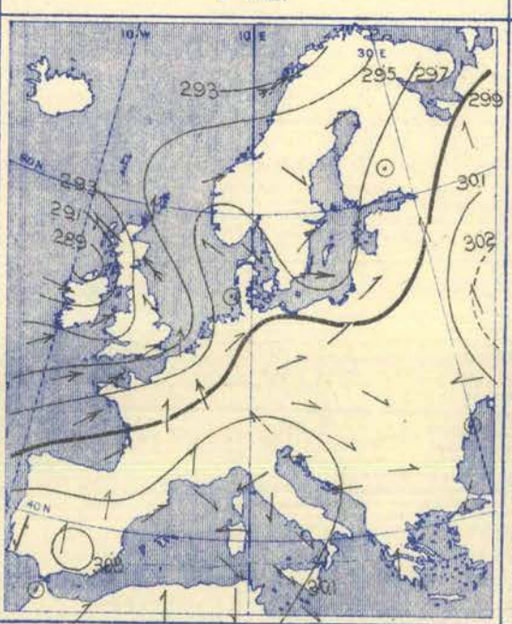


*Weather* in morning fine over southern and eastern Europe as well as over the eastern shores of the North Sea; thunder and lightning at Vienna. Rain later in almost all parts of our Islands and France, but less heavy and continuous than of late except in the far north; lightning at Pembroke.

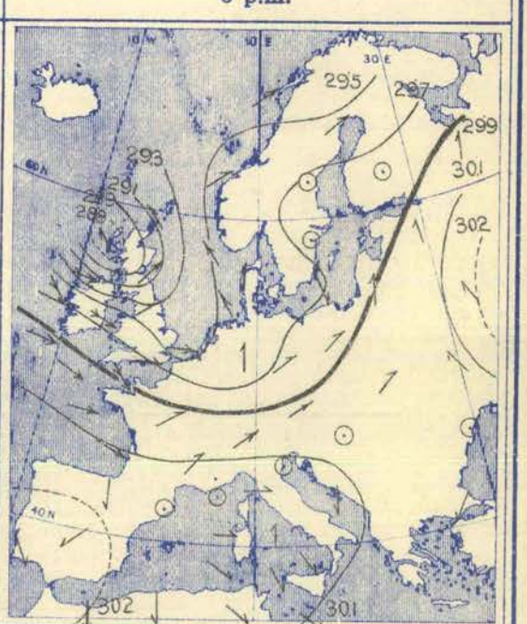
*Temperature* risen generally over our Islands and France, fallen over Germany and the Baltic. Morning readings highest, (1) 73° at Algiers, 71° at Malta, 68° at Cagliari; (2) 63° at Biarritz, 58° at Dungeness, 55° to 51° along our western coasts. Lowest, (1) 36° at Archangel, 37° at Moscow, 40° both at Kharkov and Haparanda; (2) 37° at Christiansund, 39° at Bodö and Skudesnaes, 42° at Sumburgh Head, 48° at Leith. Rising to above 50° later almost all over the Kingdom, to 57° at Liverpool, 61° at Jersey; 63° at Paris, 70° at Cape Bearne, and 84° at Nemours. Inclined to fall in our Islands at night.

### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



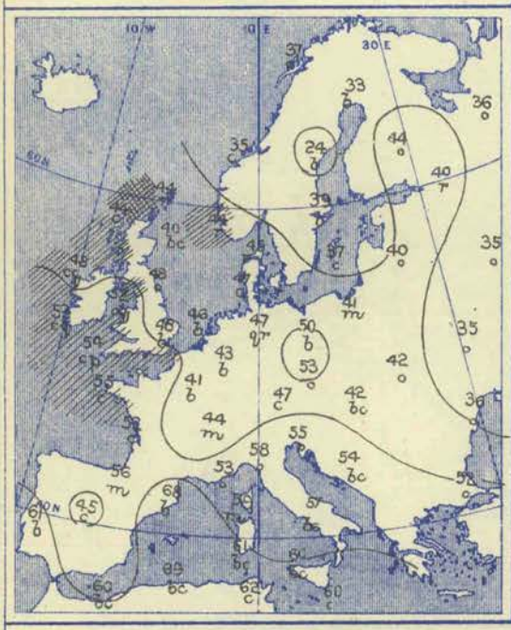
*Wind* (1) light and variable (anticyclonic) over southern and eastern Europe; (2) South-Easterly to South-Westerly over the British Islands and blowing hard in many places. (3) Southerly in Finland, North-Westerly in the Skager Rack. Gales later from South-East in Scotland, and from between South-West and North-West over the other parts of the British Islands.

*Barometer* highest, (1) 30·2 ins. to 30·0 ins. over Russia; (2) 30·3 to 30·0 ins. over Spain; (3) 30·1 ins. and more over the south of France. Lowest, (1) 28·9 ins. and less in a depression lying off the north of Ireland; (2) 29·3 ins. over the north-west of Sweden, and 29·5 ins. at Stockholm. Rising later very fast over Ireland and England, falling in Scotland and Norway.

## Saturday, 11th November.

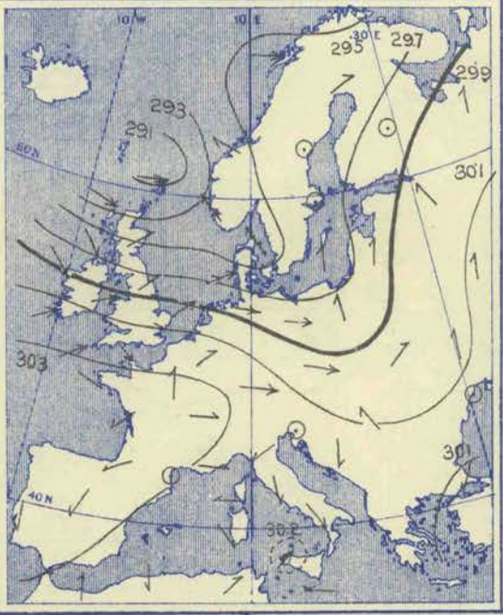
### Temperature and Weather.

#### 8 a.m.

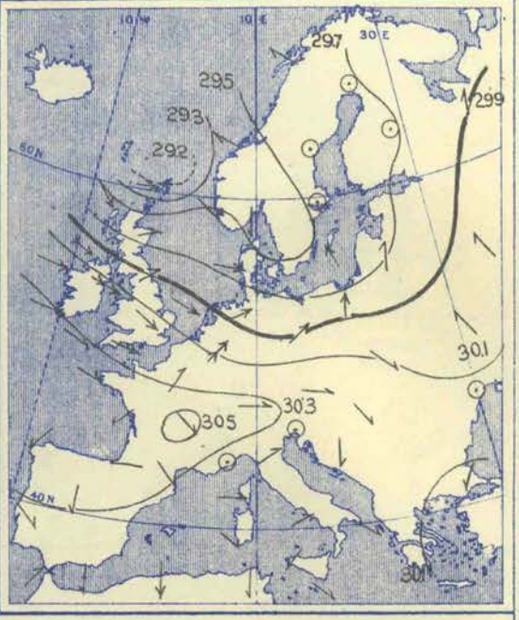


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning still fine over the Mediterranean, fair over south-eastern, southern and south-western Europe, and finer than of late over the British Islands and northern Europe. Slight rain later in many parts of our Islands, and considerable amounts in the south of Sweden; hail in the north-west of Ireland, thunder at Cuxhaven.

*Temperature* fallen fast in France and in parts of Sweden, slightly over the British Isles, risen over Germany. Morning readings highest, 69° at Algiers, 68° at Malta and Barcelona, 58° at Leghorn, 56° at Biarritz, 55° at Brest, 55° to 52° over the English Channel and south-west of Ireland, 54° at Prague, 50° at Berlin, and Swinemünde. Lowest, (1) 32° to 36° in the extreme north of Europe; (2) 35° at Moscow and Kieff, also at Christiansund; (3) 40° at Aberdeen and Nairn. Not touching 50° in Scotland later, but rising to 57° in London, 60° at Dungeness, 57° at Paris and 66° at Nice.

*Wind* (1) Light and variable over the eastern and southern parts of Europe; (2) South-Westerly to North-Westerly, very strong over the British Islands and North Sea, South-Easterly in the west of Norway; (3) North-Easterly, light over Spain. Little change later.

*Barometer* highest, still exceeding 30·0 ins. over the central and eastern parts of Russia; (2) 30·2 ins. and more over Spain, the Bay of Biscay and France. Lowest, 29·1 ins. and less in a depression, the central area of which lay near the Shetland Isles. Gradients over our Islands and the North Sea were steep, but decreasing. Pressure increasing over the British Islands and North Sea all day; depression in the north moving north-eastwards.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇉ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During the first half of this week pressure was highest continuously over the south-eastern and eastern parts of Europe, and the zone of high pressure extended thence (with slighter intensity) in a westerly direction to the Mediterranean and the south of France. The readings in those regions were comparatively uniform, while in the west and north of our Islands and the west of Norway, depression after depression moving in a north-easterly direction continued to arrive in rapid succession, while their shallow secondaries passed over the south-eastern and southern parts of England. The United Kingdom was, therefore, the scene of gales and strong winds, mild weather, frequent and continuous rains, which sometimes extended to various parts of France and north Germany. (The south of France seems to have been subject to heavy rain locally on the 5th and 6th.)

On Thursday a new anticyclone began to spread over the Spanish Peninsula, and thence to the south and west of France. Soon after the depressions which reached our western shores decreased in intensity, and by the close of the week there was a considerable falling off in the amount of rain which fell, and a decrease of the temperature over western Europe.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 266.

| STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 7·6 | ? | 14 | ? | BRIGHTON | 20·3 | + 0·3 | 32 | + 2 |
| STRATHPEFFER SPA | 8·5 | − 5·5 | 15 | − 7 | WORTHING | 20·7 | ? | 32 | ? |
| EDINBURGH | 19·3 | + 4·3 | 33 | +10 | BOGNOR | 19·7* | ? | 31* | ? |
| MORPETH | 22·2 | ? | 37 | ? | EASTBOURNE | 19·5 | + 2·0 | 30 | + 4 |
| NEWCASTLE-ON-TYNE | 17·8 | ? | 30 | ? | VENTNOR HOSPITAL | 17·7 | ? | 28 | ? |
| OSWALDKIRK (Yorkshire) | 9·5 | − 3·5 | 16 | − 5 | SOUTHPORT | 10·3 | ? | 17 | ? |
| LOWESTOFT | 20·6 | ? | 33 | ? | COLWYN BAY | 19·5 | ? | 31 | ? |
| HOLLESLEY BAY | 22·4 | ? | 36 | ? | RHYL | | ? | | ? |
| SHEFFIELD | 13·8 | ? | 22 | ? | ABERDOVEY | 10·4* | ? | 17* | ? |
| WORKSOP | 12·7 | − 0·7 | 20 | 0 | TENBY | 18·0 | + 0·2 | 29 | + 2 |
| THURCASTON (Leicestershire) | 17·0 | + 2·0 | 27 | + 3 | NEWQUAY | ?24·2 | ?+ 4·2 | ?38 | ?+ 7 |
| MARGATE | 22·4 | + 5·1 | 35 | + 8 | TORQUAY | 22·9 | + 5·4 | 36 | +10 |
| WESTBOURNE (Emsworth) | 19·5* | + 2·9 | 30* | + 5 | GUERNSEY | 15·8* | − 1·8 | 24* | − 2 |
| WATERGATE (Emsworth) | 19·2 | ? | 30 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 46.] *Third Series.* WEEK ENDING SATURDAY, NOVEMBER 18TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 272.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 56 | 26 | 49·3 | 39·0 | 44·4 | 3 above | 29 | +10 | 3 | − 7 | 2278* | +364 | 647 | − 47 |
| | 1. SCOTLAND, EAST | 56 | 23 | 49·7 | 36·3 | 43·0 | 3 above | 31 | +11 | 16 | − 3 | 2505 | +205 | 727 | − 8 |
| | 2. ENGLAND, N.E. | 55 | 28 | 49·9 | 38·8 | 44·4 | 2 above | 30 | + 5 | 9 | − 3 | 2819 | +322 | 475 | −117 |
| | 3. ENGLAND, EAST | 54 | 27 | 49·6 | 37·6 | 43·6 | 1 above | 30 | + 1 | 12 | − 2 | 3293 | +405 | 455 | −214 |
| | 4. MIDLAND COUNTIES | 55 | 24 | 48·4 | 37·6 | 43·0 | 1 above | 25 | − 3 | 12 | − 4 | 3258 | +399 | 535 | −152 |
| | 5. ENGLAND, SOUTH | 57 | 31 | 52·1 | 41·2 | 46·7 | 2 above | 36 | − 1 | 2 | − 6 | 3715 | +567 | 303 | −207 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 56 | 28 | 50·1 | 41·1 | 45·6 | 3 above | 29 | + 4 | 3 | − 9 | 2659 | +228 | 425 | − 89 |
| | 7. ENGLAND, N.W. | 60 | 24 | 50·1 | 41·1 | 45·6 | 2 above | 29 | 0 | 3 | − 6 | 3060 | +395 | 323 | −169 |
| | 8. ENGLAND, S.W. | 57 | 25 | 53·0 | 43·7 | 48·4 | 3 above | 45 | + 5 | 0 | − 5 | 3586 | +623 | 243 | −137 |
| | 9. IRELAND, NORTH | 57 | 31 | 51·7 | 44·3 | 48·0 | 5 above | 42 | +15 | 0 | −11 | 2891 | +329 | 326 | −108 |
| | 10. IRELAND, SOUTH | 58 | 36 | 54·2 | 44·7 | 49·5 | 4 above | 53 | +16 | 0 | − 8 | 3388* | +474 | 250 | − 83 |
| | —CHANNEL ISLANDS | 60 | 42 | 56·2 | 47·3 | 51·8 | 3 above | 69 | +12 | 0 | 1 | 4286 | +871 | 81 | − 68 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 272.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 5 | 13 | 1 less | 202 | −11 | 45·7 | + 3·1 | 6 | − 3 | 10 | − 4 | 1189 | +143 | 28 | + 3 |
| | 1. SCOTLAND, EAST | 2 | 2 | 6 less | 177 | + 2 | 29·4 | + 1·5 | 11 | − 1 | 19 | − 2 | 1312 | + 85 | 32 | + 2 |
| | 2. ENGLAND, N.E. | 2 | 1 | 5 less | 153 | −11 | 21·1 | − 2·1 | 13 | + 4 | 22 | + 8 | 1309 | +117 | 33 | + 3 |
| | 3. ENGLAND, EAST | 0 | — | 6 less | 139 | −21 | 20·8 | − 2·2 | 8 | − 8 | 13 | −12 | 1802 | +278 | 43 | + 7 |
| | 4. MIDLAND COUNTIES | 0 | — | 6 less | 137 | −20 | 23·4 | − 1·5 | 9 | − 5 | 14 | − 6 | 1582 | +312 | 40 | + 8 |
| | 5. ENGLAND, SOUTH | 0 | — | 7 less | 121 | −32 | 22·9 | − 2·6 | 19 | + 2 | 31 | + 5 | 1930 | +370 | 47 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 3 | 6 | 8 less | 195 | +13 | 45·3 | + 1·3 | 3 | − 9 | 5 | −15 | 1320 | + 24 | 32 | 0 |
| | 7. ENGLAND, N.W. | 1 | 1 | 8 less | 169 | − 1 | 32·4 | + 1·7 | 14 | + 3 | 24 | + 5 | 1561 | +268 | 38 | + 6 |
| | 8. ENGLAND, S.W. | 1 | less than ½ | 10 less | 153 | −20 | 34·2 | − 0·7 | 20 | + 4 | 33 | + 8 | 1858 | +278 | 46 | + 7 |
| | 9. IRELAND, NORTH | 2 | 4 | 4 less | 200 | + 3 | 32·8 | + 0·1 | 8 | − 7 | 13 | −12 | 1373 | +167 | 34 | + 5 |
| | 10. IRELAND, SOUTH | 1 | 1 | 8 less | 165 | −14 | 35·4 | + 1·5 | 19 | + 3 | 31 | + 4 | 1564 | +193 | 38 | + 4 |
| | — CHANNEL ISLANDS | 1 | less than ½ | 9 less | 147 | −35 | 24·7 | − 4·1 | 34 | +15 | 55 | +25 | 2061 | +314 | 53 | + 8 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this week was fair and dry over the Kingdom generally. Considerable rain was experienced, however, in the north of Scotland during the earlier half of the week, and a good deal of fog or mist prevailed later on in most inland localities.

*Temperature* was again above the mean, the excess ranging from 1° in England E. and the Midland Counties to between 4° and 5° in Ireland. The highest of the maxima were registered either on the 13th or 14th, and ranged from 60° in the Channel Islands and England N.W. to 54° in England E. Towards the end of the week the daily maxima became gradually lower, until on Saturday that at Loughborough (where thick fog prevailed) was no higher than 32°. The lowest of the minima were recorded on the 16th in Scotland, and on the 18th in England and Ireland; they ranged from 23° in Scotland E., and 24° in the Midland Counties and England N.W. to 31° in England S. and Ireland N., 36° in Ireland S., and to 42° in the Channel Islands.

*Rainfall* was nearly equal to the mean in Scotland N., but much less in all other districts, although some isolated places in the extreme north-west of Ireland reported large amounts. In many parts of the Kingdom the rainfall was scarcely appreciable, and in others it was entirely absent.

*Bright Sunshine* varied considerably in different districts, but in most instances it was above the mean—especially in the Channel Islands. The percentage of the possible duration ranged from 55 in the district just named, and from 33 in England S.W., and 31 in England S. and Ireland S. to 13 in England E., 10 in Scotland N., and 5 in Scotland W.

*Barometer and Wind.*—The distribution of pressure over our Islands during this period was mainly anticyclonic, the only exceptions being (1) that our extreme north-western and northern coasts were at first affected by depressions moving eastwards to Scandinavia, (2) that on Tuesday a shallow disturbance appeared over Ireland which, after moving eastwards to England, quickly filled up. During the early days of the week the winds were chiefly Westerly or North-Westerly, and of moderate strength, but a Northerly gale was experienced in the west of Ireland on the 14th. Later on variable easterly airs became general in all the southern districts, and light southerly and South-Westerly winds in the north.

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913 | 70 11 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 271 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 52 | 41 | 49·1 | 42·7 | 45·9 | + 3·9 | 27 | 0 | 5 | 0·44 | − 0·54 | * | * | * | * |
| | Stornoway | 54 | 34 | 51·7 | 38·9 | 45·3 | + 3·5 | 36 | 9 | 4 | 1·26 | + 0·14 | 7·9 | − 3·2 | 15 | − 5 |
| | Wick | 56 | 30 | 50·0 | 37·6 | 43·8 | + 2·6 | 31 | 12 | 5 | 0·28 | − 0·41 | * | * | * | * |
| | Lairg Ⓢ | | | | | | | | | | | | * | * | * | * |
| | Glencarron Ⓢ | 52 | 29 | 48·6 | 38·3 | 43·5 | + 3·3 | 26 | 10 | 5 | 2·25 | 0·00 | * | * | * | * |
| | Fort Augustus Ⓢ | 54 | 26 | 50·1 | 36·1 | 43·1 | + 1·6 | 32 | 17 | 4 | 1·04 | + 0·02 | 4·6 | − 0·3 | 8 | 0 |
| | Fort William Ⓢ | 54 | 32 | 49·1 | 40·3 | 44·7 | + 2·3 | 26 | 5 | 4 | 2·30 | + 0·43 | 4·8 | − 3·2 | 9 | −15 |
| 1. SCOTLAND E. | Nairn | 55 | 28 | 50·7 | 37·3 | 44·0 | + 3·5 | 34 | 13 | 4 | 0·31 | − 0·19 | * | * | * | * |
| | Aberdeen | 54 | 31 | 49·4 | 39·1 | 44·3 | + 2·7 | 28 | 8 | 2 | 0·08 | − 0·67 | 10·8 | − 4·0 | 20 | − 5 |
| | Braemar Ⓢ | 51 | 23 | 45·7 | 33·1 | 39·4 | + 1·5 | 10 | 34 | 2 | 0·23 | − 0·65 | 5·3† | − 1·7† | 10† | − 3† |
| | Ochtertyre Ⓢ | 55 | 30 | 49·9 | 36·3 | 43·1 | + 2·5 | 32 | 16 | 3 | 0·08 | − 0·94 | * | * | * | * |
| | Leith | 56 | 30 | 51·9 | 37·7 | 44·8 | + 2.1 | 38 | 12 | 1 | 0·03 | − 0·46 | * | * | * | * |
| | Marchmont Ⓢ | 52 | 31 | 50·6 | 34·3 | 42·5 | + 2·4 | 36 | 22 | 1 | 0·31 | − 0·50 | 15·8 | + 2·3 | 28 | + 4 |
| 2. ENGLAND, N.E. | Alnwick Castle | 55 | 29 | 51·1 | 37·2 | 44·2 | + 2·3 | 36 | 13 | 2 | 0·18 | − 0·57 | * | * | * | * |
| | Durham | 53 | 28 | 48·4 | 36·3 | 42·4 | + 1·2 | 27 | 16 | 5 | 0·17 | − 0·48 | 17·5 | + 4·4 | 31 | + 9 |
| | Shields | 54 | 33 | 49·9 | 39·7 | 44·8 | + 2·0 | 29 | 6 | 2 | 0·13 | − 0·43 | * | * | * | * |
| | Scarborough Ⓜ | | | | | | | | | | | | | | | |
| | Spurn Head | 54 | 35 | 50·3 | 42·1 | 46·2 | + 2·4 | 29 | 0 | 0 | — | − 0·52 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 53 | 28 | 48·6 | 35·0 | 41·8 | − 0·2 | 18 | 29 | 1 | 0·03 | − 0·59 | 10·1 | − 3·1 | 17 | − 5 |
| | Yarmouth | 54 | 35 | 50·6 | 41·4 | 46·0 | + 2·6 | 31 | 2 | 0 | — | − 0·68 | * | * | * | * |
| | Geldeston | 53 | 30 | 50·2 | 37·5 | 43·9 | + 0·6 | 32 | 13 | 0 | 0·02‡ | − 0·60 | 8·0 | − 7·6 | 13 | −11 |
| | Cambridge | 54 | 27 | 49·5 | 35·0 | 42·3 | − 0·1 | 32 | 20 | 0 | — | − 0·48 | 4·7 | −10·8 | 8 | −17 |
| | Felixstowe | 52 | 34 | 49·6 | 39·9 | 44·8 | + 0·9 | 28 | 6 | 0 | — | ? | 11·4 | ? | 19 | ? |
| | Rothamsted | 52 | 29 | 48·9 | 37·0 | 43·0 | + 1·0 | 28 | 14 | 0 | 0·02‡ | − 0·63 | 6.5 | − 8·5 | 11 | −14 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 54 | 25 | 47·0 | 37·3 | 42·2 | + 0·2 | 21 | 13 | 0 | 0·03‡ | − 0·45 | * | * | * | * |
| | Loughborough | 55 | 27 | 47·7 | 36·9 | 42·3 | − 0·9 | 24 | 14 | 1 | 0·02 | − 0·49 | * | * | * | * |
| | Stamford (Ketton) | 54 | 25 | 49·1 | 35·4 | 42·3 | − 0·1 | 30 | 18 | 0 | — | − 0·62 | * | * | * | * |
| | Cheadle Ⓜ | 51 | 28 | 47·5 | 38·5 | 43·0 | + 1·7 | 22 | 10 | 0 | — | − 0·70 | * | * | * | * |
| | Shirley (near Solihull) | 53 | 24 | 48·3 | 37·6 | 43·0 | + 1·0 | 25 | 12 | 0 | 0·01‡ | ? | * | * | * | * |
| | Churchstoke Ⓜ | 55 | 24 | 48·9 | 38·1 | 43·5 | + 1·7 | 27 | 11 | 1 | 0·01 | − 0·79 | 10·8 | − 2·0 | 18 | − 2 |
| | Hereford (Belmont) Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Cirencester | 54 | 27 | 48·7 | 38·7 | 43·7 | + 1·8 | 26 | 9 | 0 | — | − 0·72 | 18·3 | + 3·9 | 30 | + 7 |
| | Oxford | 54 | 28 | 49·7 | 38·4 | 44·1 | + 1·1 | 30 | 10 | 0 | — | − 0·58 | 8·4 | − 6·4 | 14 | − 9 |
| 5. ENGLAND, S. | London | 55 | 33 | 51·4 | 39·6 | 45·5 | + 1·5 | 35 | 7 | 0 | — | − 0·55 | 4·0† | − 6·0† | 7† | − 8† |
| | Cranley Ⓜ | 55 | 31 | 51·8 | 37·2 | 44·5 | + 0·8 | 38 | 13 | 0 | — | ? | * | * | * | * |
| | Dungeness | 55 | 35 | 54·1 | 43·0 | 48·6 | + 3·4 | 46 | 0 | 2 | 0·03 | − 0·75 | * | * | * | * |
| | Hastings (St. Leonards) | 55 | 38 | 51·8 | 41·9 | 46·9 | + 1·9 | 35 | 0 | 0 | 0·01‡ | − 0·77 | 19·3 | + 2·3 | 32 | + 4 |
| | Southampton | 57 | 36 | 52·5 | 40·3 | 46·4 | + 1·7 | 38 | 5 | 0 | — | − 0·71 | 22·4 | + 7·2 | 37 | +13 |
| | Portland Bill | 56 | 41 | 53·0 | 46·3 | 49·7 | + 3·3 | 54 | 0 | 0 | — | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 53 | 35 | 49·8 | 40·1 | 45·0 | + 3·0 | 29 | 5 | 1 | 0·01 | − 0·84 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 55 | 32 | 51·4 | 41·4 | 46·4 | + 3·3 | 33 | 2 | 4 | 0·94 | − 1·11 | * | * | * | * |
| | Glasgow | 53 | 32 | 48·6 | 40·6 | 44·6 | + 2·9 | 24 | 4 | 3 | 0·60 | − 0·29 | 2·8 | − 5·2 | 5 | − 8 |
| | Glenlee Ⓢ | 56 | 28 | 49·1 | 40·0 | 44·6 | + 3·6 | 27 | 6 | 3 | 0·61 | − 0·87 | * | * | * | * |
| | Douglas (Isle of Man) | 55 | 33 | 51·4 | 42·3 | 46·9 | + 2·6 | 34 | 0 | 2 | 0·17 | − 0·91 | 3·1 | −12·1 | 5 | −21 |
| 7. ENGLAND, N.W. | Newton Reigny | 55 | 24 | 47·9 | 36·9 | 42·4 | + 2·6 | 24 | 14 | 2 | 0·10 | ? | 10·2 | ? | 18 | ? |
| | Stonyhurst | 53 | 28 | 47·5 | 39·7 | 43·6 | + 1·1 | 21 | 6 | 1 | 0·03 | − 0·92 | 12·8 | + 1·8 | 22 | + 4 |
| | Blackpool Ⓜ | 57 | 31 | 50·6 | 41·5 | 46·1 | + 3·0 | 31 | 1 | 0 | 0·01‡ | − 0·77 | 8·9 | − 2·1 | 15 | − 3 |
| | Manchester (Prestwich) | 56 | 29 | 50·5 | 38·1 | 44·3 | + 2·0 | 32 | 11 | 0 | 0·01‡ | − 0·80 | 7·1 | ? | 12 | ? |
| | Liverpool Obsy. (Bidston) | 55 | 31 | 49·9 | 41·9 | 45·9 | + 2·0 | 28 | 0 | 1 | 0·03 | − 0·64 | 19·5 | ? | 33 | ? |
| | Llandudno Ⓜ | 60 | 35 | 52·2 | 43·7 | 48·0 | + 2·5 | 42 | 0 | 1 | 0·15 | − 0·65 | 14·6 | + 2·6 | 25 | + 5 |
| | Holyhead | 55 | 41 | 51·9 | 45·9 | 48·9 | + 2·6 | 48 | 0 | 2 | 0·08 | − 0·84 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 56 | 25 | 51·4 | 39·7 | 45·6 | + 2·6 | 35 | 6 | 1 | 0·04 | − 1·16 | * | * | * | * |
| | Pembroke | 57 | 41 | 53·9 | 48·1 | 51·0 | + 4·0 | 63 | 0 | 0 | — | − 0·95 | 18·7 | + 3·7 | 31 | + 7 |
| | Clifton | 55 | 35 | 51·7 | 43·4 | 47·6 | + 4·3 | 39 | 0 | 0 | — | − 0·80 | * | * | * | * |
| | Arlington (N. Devon) | 56 | 33 | 52·7 | 42·1 | 47·4 | + 3·7 | 38 | 0 | 0 | — | − 1·45 | * | * | * | * |
| | Cullompton Ⓜ | 56 | 32 | 52·9 | 40·0 | 46·5 | + 2·7 | 40 | 6 | 1 | 0·02 | − 0·81 | 15·4 | + 1·8 | 25 | + 5 |
| | Falmouth | 57 | 44 | 55·0 | 47·1 | 51·1 | + 3·4 | 64 | 0 | 2 | 0·05 | − 1·20 | 27·7 | + 9·9 | 45 | +17 |
| | Plymouth | 56 | 41 | 53·7 | 45·6 | 49·7 | + 3·1 | 54 | 0 | 0 | — | − 0·88 | 21·2 | + 5·9 | 34 | +11 |
| 9. IRELAND, N. | Malin Head | 53 | 40 | 50·7 | 45·0 | 47·9 | + 3·4 | 41 | 0 | 3 | 0·43 | ? | * | * | * | * |
| | Londonderry | 54 | 43 | 51·7 | 46·0 | 48·9 | + 5·9 | 48 | 0 | 2 | 0·41 | − 0·57 | * | * | * | * |
| | Edenfel (Omagh) | 54 | 37 | 50·7 | 43.6 | 47·2 | + 6·1 | 36 | 0 | 2 | 0·27 | − 0·53 | * | * | * | * |
| | Blacksod | 56 | 35 | 52·0 | 42·7 | 47·4 | + 2·0 | 38 | 0 | 2 | 0·99 | ? | * | * | * | * |
| | Markree Castle | 55 | 31 | 51·7 | 42·6 | 47·2 | + 4·5 | 36 | 0 | 2 | 0·49 | − 0·46 | 6·1 | − 8·7 | 10 | −14 |
| | Armagh | 57 | 41 | 52·5 | 45·1 | 48·8 | + 6·7 | 48 | 0 | 2 | 0·23 | − 0·44 | 9·3 | − 4·7 | 16 | − 9 |
| | Donaghadee | 55 | 38 | 52·4 | 44·9 | 48·7 | + 4·7 | 47 | 0 | 1 | 0·18 | − 0·52 | * | * | * | * |
| 10. IRELAND, S. | Dublin | 58 | 39 | 54·7 | 45·5 | 50·1 | + 5·1 | 57 | 0 | 1 | 0·10 | − 0·48 | 15·0 | − 2·6 | 25 | − 3 |
| | Parsonstown | 57 | 37 | 53·3 | 44·3 | 48·8 | + 5·6 | 48 | 0 | 2 | 0·05 | − 0·63 | 15·4 | + 0·2 | 26 | 0 |
| | Kilkenny | 57 | 38 | 52·6 | 42·7 | 47·7 | + 3·5 | 40 | 0 | 1 | 0·01 | − 0·67 | * | * | * | * |
| | Roche's Point | 56 | 42 | 54·4 | 45·1 | 49·8 | + 3·0 | 55 | 0 | 1 | 0·05 | − 1·06 | * | * | * | * |
| | Valencia | 57 | 44 | 55·3 | 46·9 | 51·1 | + 3·6 | 64 | 0 | 2 | 0·14 | − 1·16 | 25·3 | + 9·2 | 42 | +16 |
| | Killarney | 58 | 39 | 55·2 | 45·2 | 50·2 | + 4·9 | 57 | 0 | 0 | — | ? | * | * | * | * |
| | Foynes | 56 | 36 | 53·7 | 43·2 | 48·5 | + 3·7 | 46 | 0 | 1 | 0·02 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 59 | 47 | 57·7 | 49·0 | 53·4 | + 3·8 | 80 | 0 | 1 | 0·02 | − 0·88 | 36·4 | ? | 59 | ? |
| | Jersey | 60 | 42 | 54·6 | 45·6 | 50·1 | + 1·8 | 57 | 0 | 1 | 0·02 | − 0·98 | 34·4 | +16·3 | 55 | +28 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

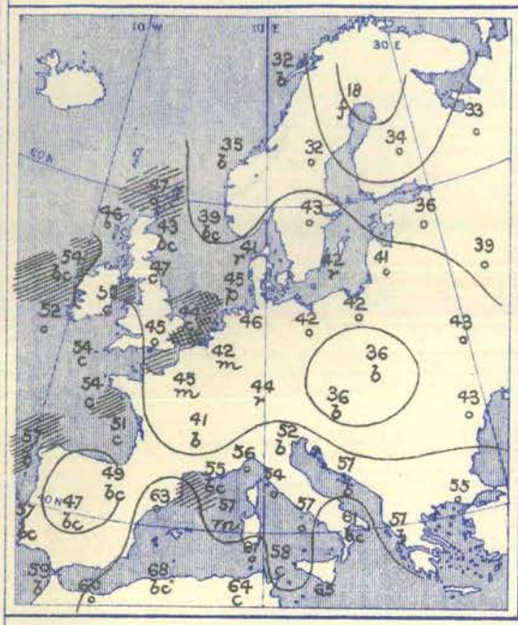
‡ Wet fog or dew.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 12th November.

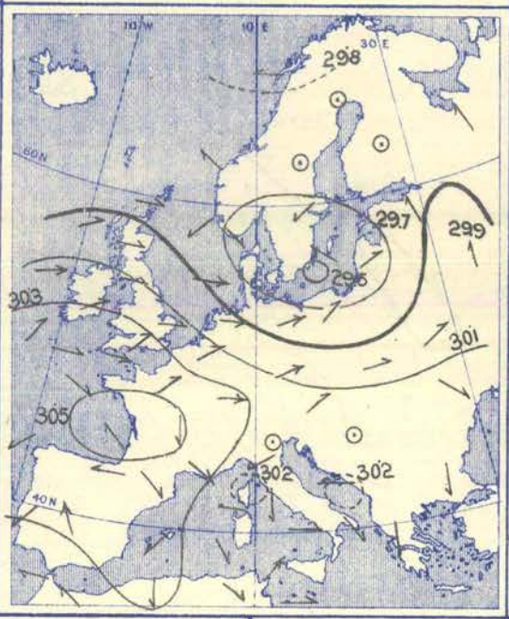
### Temperature and Weather.

8 a.m.

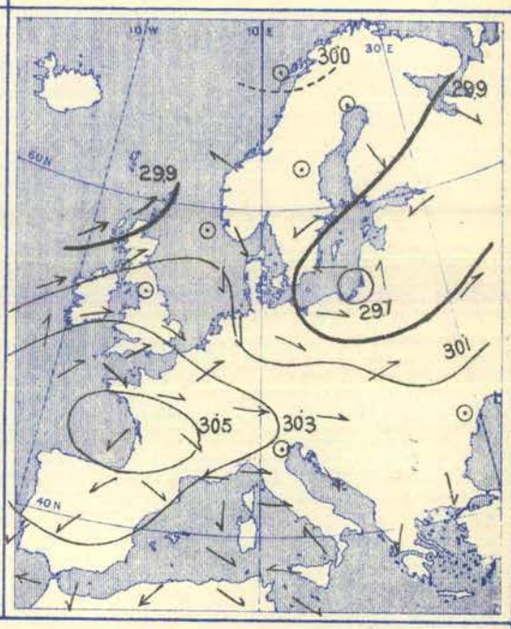


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair over the greater part of the United Kingdom, but dull in places, especially in the west and south. Fine in Austria, Spain and the south of France, as well as in the west of Norway; dull in most other parts of the Continent, with rain in several parts of Denmark, Germany and the Netherlands. A little rain falling later in the north and extreme south of our Islands, and larger quantities at some of the German stations; snow reported at Archangel in evening.

*Temperature* fallen over England, France and central Europe generally; changed irregularly elsewhere. Morning readings highest, 68° at Algiers, 65° at Malta, and 64° at Palma and Tunis; above 60° at several of the Mediterranean stations. Lowest, 18° at Haparanda, 31° at Uleaborg, and 32° at Bodö and Hernösand. Rising during day to 55° and upwards in many parts of Great Britain, and to 60° at Jersey; exceeding 60° in the west of France; exceeding 70° in some parts of Spain and southern Italy, and reaching 81° at Sanguinaire.

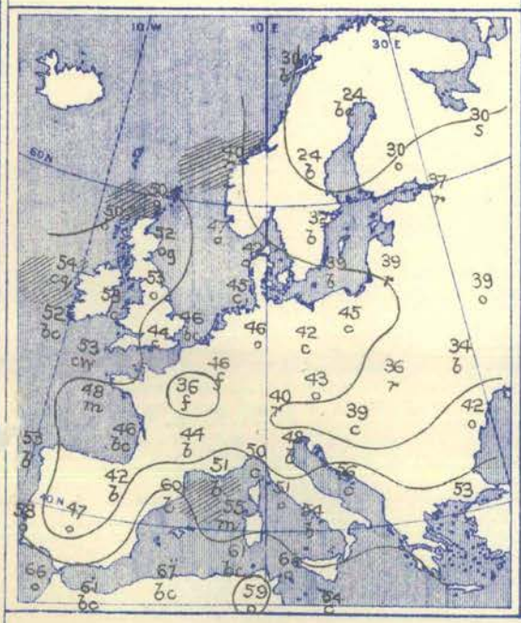
*Wind* Westerly or South-Westerly over our Islands, the Netherlands and Germany, and strong in force on some parts of the English and Dutch coasts; Southerly or South-Easterly over the Baltic and northern Russia; Northerly or North-Westerly over Denmark and the south of Norway; calm in the Gulf of Bothnia. Variable in Italy and the south of France; moderate to fresh from the Eastward (South-East to North-East) over the Spanish Peninsula. Subsequently freshening from the South-Westward on our own extreme north-west coasts; no important change occurring elsewhere.

*Barometer* highest, 30·5 ins. and upwards over the Bay of Biscay and the western and central parts of France; 30·1 ins. and upwards in an anticyclone covering the whole of central and southern Europe and extending northwards over England and Ireland. Lowest, 29·6 ins. and less in a depression with its centre over the Baltic, near Oland. Depression subsequently moving eastwards; new disturbance approaching the north-west of Scotland in evening.

## Monday, 13th November.

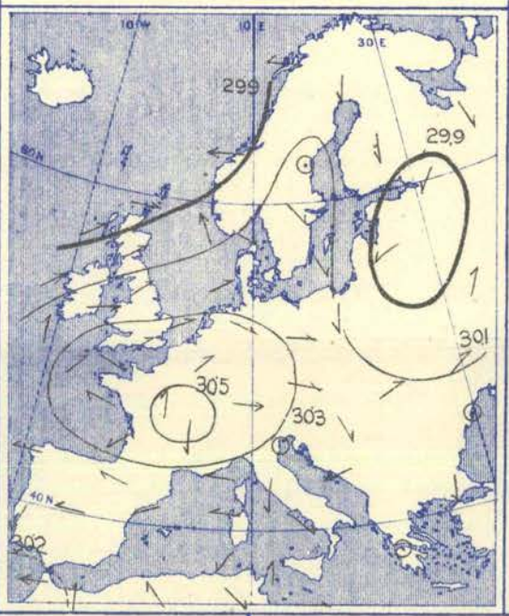
### Temperature and Weather.

8 a.m.

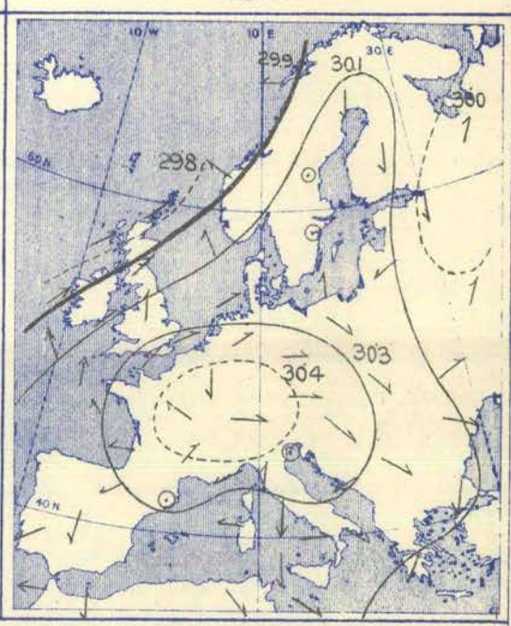


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning cloudy or dull over north-western, northern, and central Europe as a whole, with rain at Wick and Christiansund, and also at some of the Russian stations; snow falling at Archangel. Fine in Sweden, and also in most of the southern countries; foggy over Belgium and central France. Rain falling later in Ireland and the west and north of Scotland, heavily at Stornoway and Blacksod Point. Solar and lunar halos seen in the south of England.

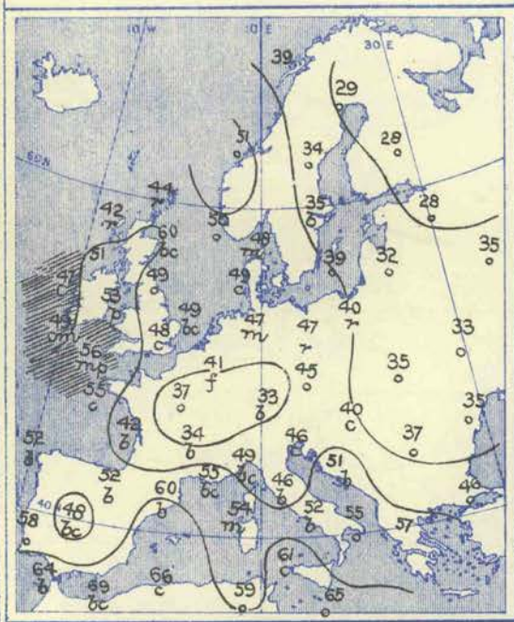
*Temperature* risen in our Islands and the eastern shores of the North Sea, but fallen elsewhere. Morning readings highest, 67° at Algiers, 66° at San Fernando, and 64° at Malta; above 60° at the Mediterranean stations generally, and above 50° in most parts of the United Kingdom. Lowest, 24° at Haparanda, Hernösand, and Uleaborg, and 30° at Archangel and Kuopio; exceeding 60° in the west and south of France, and exceeding 70° in some parts of Spain and southern Italy.

*Wind* light to fresh from the South-Westward in our Islands; moderate to strong from the South-Eastward or Eastward in the west of Norway. Light from the Eastward over the Spanish Peninsula and the west and south of France. Northerly (North-East to North-West) over Sweden and western and northern Russia; calm in the south of Russia; Westerly or North-Westerly over Germany and Austria; variable in Italy. Subsequently increasing to a moderate gale from the Southward or South-Westward on our extreme west and north-west coasts; no important change occurring elsewhere.

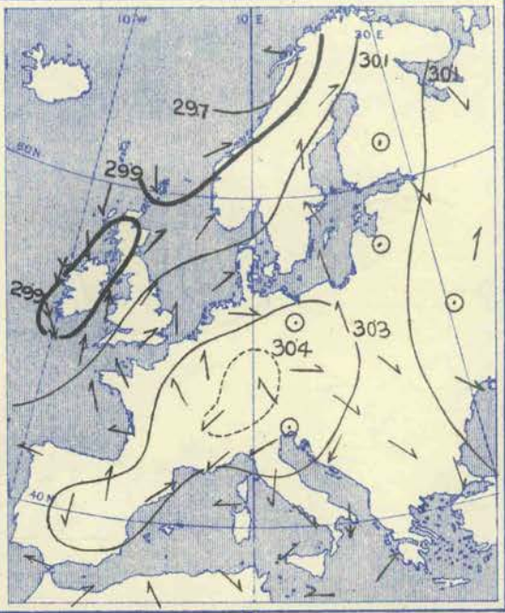
*Barometer* highest, 30·5 ins. and upwards over central France; 30·2 ins. and upwards in an anticyclone covering the whole of Spain, France, central Europe, and extending over England and the south-east of Ireland. Lowest, 29·9 ins. and less in a large depression lying to the northward of our Islands, and also in another disturbance over western Russia. New depression beginning to approach our western coasts later, and barometer falling rather decidedly in Ireland.

## Tuesday, 14th November.

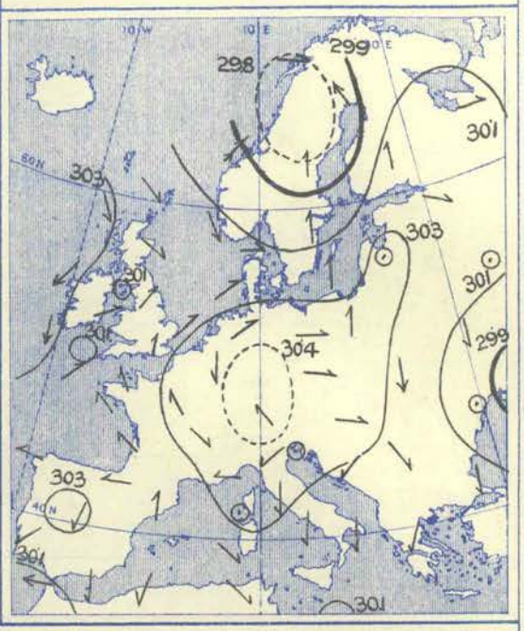
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair or fine over the greater part of England, France and southern Europe; cloudy or dull in most other regions, with fog over the Netherlands, western Germany and the south of Scandinavia; rainy on our own extreme north and north-west coasts, as well as at Bodö, Berlin, Neufahrwasser and Nicolaieff. Rain falling later in the west and north of our Islands generally, and also in Scandinavia and Denmark. Thunderstorm occurring at Lisbon.

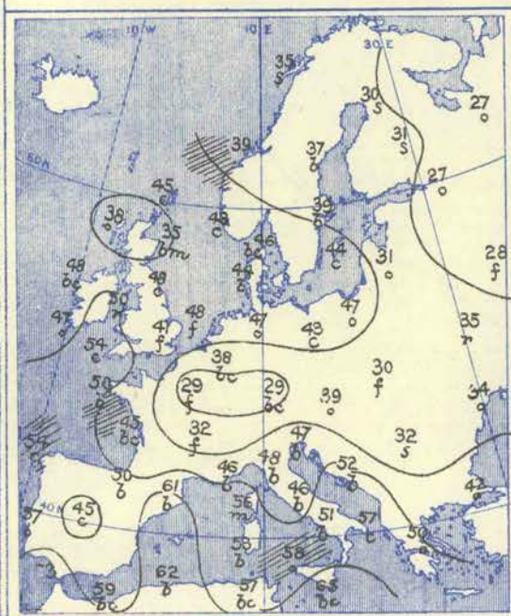
*Temperature* risen in Scandinavia, Denmark and north Germany, changed rather irregularly elsewhere, but fallen in most places. Morning readings highest, 69° at Oran, 66° at Algiers and 55° at Malta; above 55° at most of the Mediterranean stations and also on the south-west coasts of Great Britain. Lowest, (1) 28° at Kuopio and St. Petersburg, and 29° at Hangö; (2) 31° at Limoges and 33° at Munich. Rising during day to 55° or slightly above it on many parts of our western and southern coasts; exceeding 60° over Spain and the southern parts of France and Italy, and reaching 79° at Sanguinaire.

*Wind* Southerly over the greater part of our Islands, and strong in force in the Irish Sea and St. George's Channel; moderate from the Northward in the north of Scotland, and blowing a gale from the same quarter in the west of Ireland. South-Westerly on the eastern shores of the North Sea, but South-Easterly in the south of Sweden. Calm or variable in Russia, North-Westerly in Austria, Northerly in Italy, Northerly to Easterly over the Spanish Peninsula, Easterly or South-Easterly over France and south Germany. Gale in Ireland subsiding later.

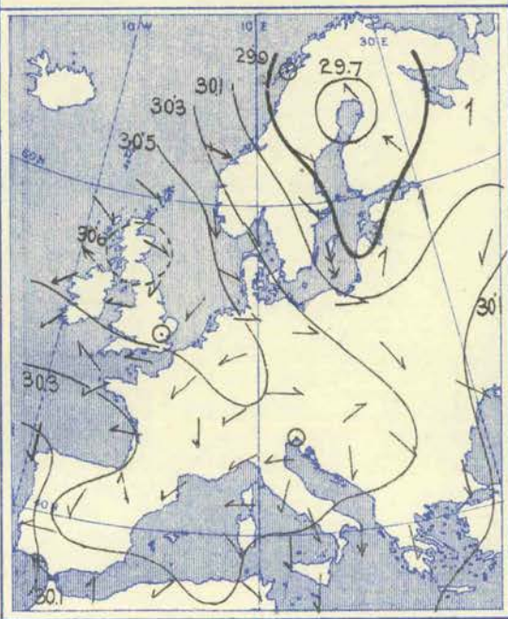
*Barometer* highest, 30·4 ins. and upwards over south Germany and the east of France; 30·2 ins. and upwards in an anticyclone covering the whole of central and southern Europe, and extending northwards over the Baltic and Finland. Lowest, 29·7 ins. and less in a depression lying off the northern part of the Norwegian coasts; 29·9 ins. and less in an elongated disturbance over Ireland and Scotland. Latter disturbance subsequently moving eastwards and partially filling up; barometer rising briskly on our western and northern coasts.

## Wednesday, 15th November.

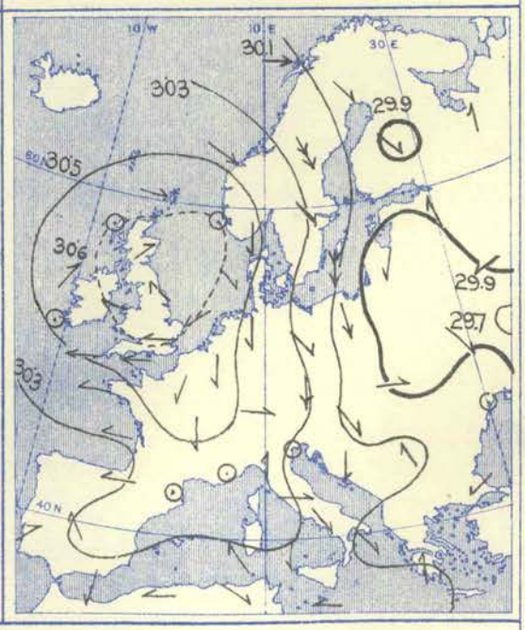
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over England and Ireland, with fog over our eastern, Midland and south-eastern counties. Fine in Scotland, and also over Sweden, Denmark and the greater part of France and southern Europe, but foggy over central France. Dull in Germany and Austria; rain and snow falling in many parts of Russia, and also in the north of Scandinavia. No important change occurring over western Europe during day, but rain falling at most of the Austrian stations.

*Temperature* fallen over north-western Europe generally, changed irregularly elsewhere. Morning readings highest, 65° at Malta, 63° at San Fernando, and 62° at Algiers; above 55° at most of the Mediterranean and Spanish coast stations. Lowest, (1) 26° at Belfort and 29° at Paris and Munich; (2) 27° at Archangel and St. Petersburg; (3) 30° at Nairn and 35° at Aberdeen. Daily maxima below 50° in the north of Scotland, and below 55° at all but our south-west coast stations: exceeding 60° in the west of France, and exceeding 65° in the southern parts of France and Italy. Frost occurring at night in many parts of Great Britain.

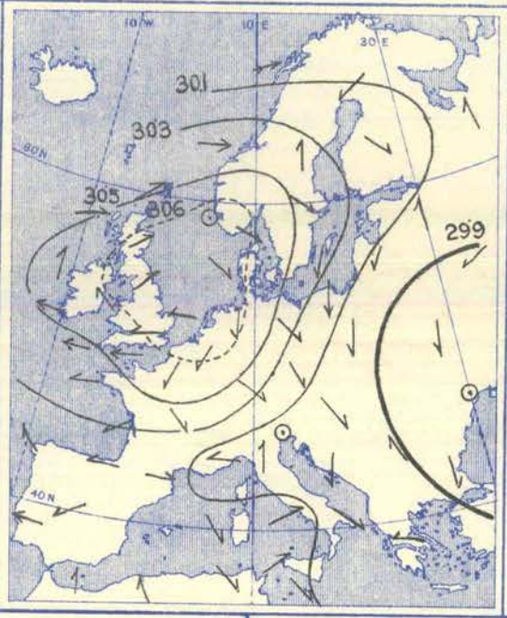
*Wind* Easterly or North-Easterly over the greater part of England, Ireland, France and Spain; light or moderate in force generally, but strong in the north of Ireland. North-Westerly in the north of Scotland, and also in Scandinavia and Denmark, with a gale at Christiansund and Wisby; Westerly in Germany and Austria; Southerly or South-Easterly over northern Russia. Light to moderate from the Northward in Italy and Greece. No important change occurring later.

*Barometer* highest, 30·6 ins. and upwards over Scotland; 30·3 ins. and upwards in an anticyclone covering nearly the whole of western, central and southern Europe. Lowest, 29·7 ins. and less in a depression with its centre over the north of Sweden; 29·8 ins. and less in another disturbance over the south of Russia. No important change occurring over western Europe during day; Swedish depression moving south-eastwards across Finland.

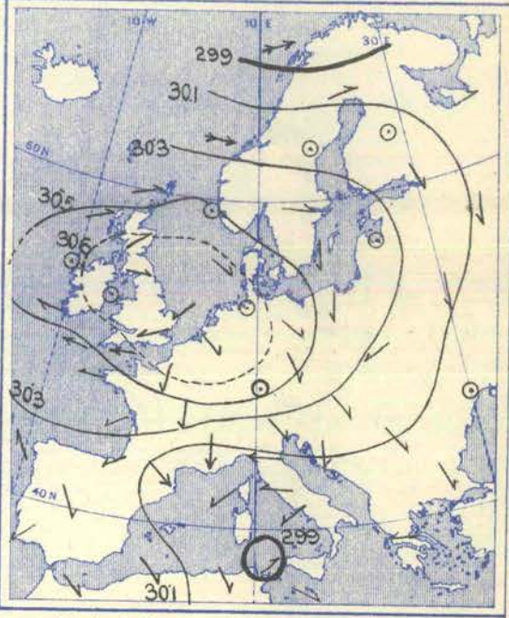
## Thursday, 16th November.

### Temperature and Weather. 8 a.m.

### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over the greater part of our Islands, with fog or mist in many places. Fine in Sweden, Denmark, the Netherlands, France, and western Germany, as well as in the extreme south of Russia, and in Austria; dull in most other parts of the Continent, with rain at Bodö and Warsaw, and snow at Archangel, St. Petersburg, and Moscow. No important change occurring over western Europe later, but thunderstorm occurring at La Calle.

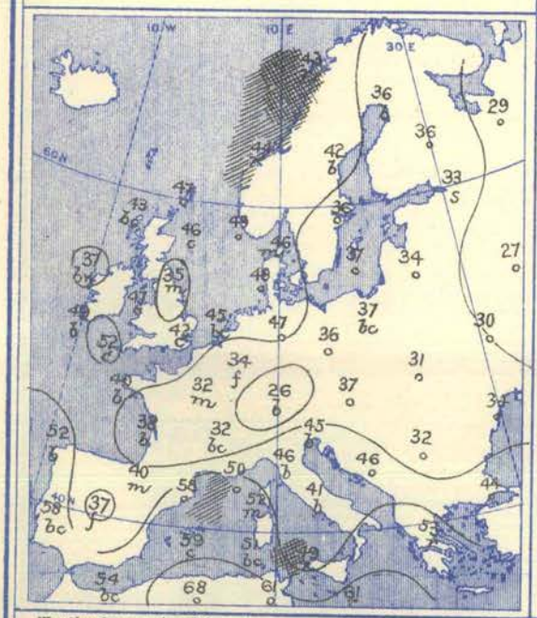
*Temperature* fallen over England and the northern and central parts of the Continent generally; risen in most other localities. Morning readings highest, 66° at Algiers, 62° at Malta, and 60° at Barcelona; above 55° at several of the Mediterranean and Spanish coast stations. Lowest, 17° at Uleaborg, 18° at Haparanda, and 26° at Archangel; lowest in our Islands, 35° at Leith, and 36° at Shields and Loughborough. Daily maxima below 50° at several of our own eastern and central stations, but thermometer exceeding 55° on our extreme south-west coasts; exceeding 65° in many parts of southern Europe, and reaching 73° at Bilbao.

*Wind* Easterly over the greater part of England, France, and the Spanish Peninsula, and fresh in force in the western parts of the English Channel. Light to moderate from the South-Eastward in Ireland, and from the South-Westward in Scotland; strong to a gale from the latter quarter in the west of Norway; Northerly or North-Westerly over central Europe generally; variable in Russia, and also over Italy and the Mediterranean. No decided change occurring later.

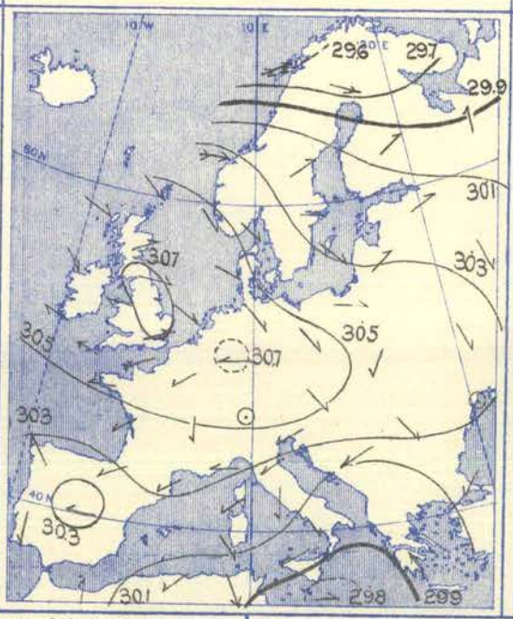
*Barometer* highest, 30·6 ins. to 30·7 ins. over the North Sea, the Netherlands, and a considerable portion of Great Britain; 30·3 ins. and upwards in an anticyclone embracing the whole of western and central Europe. Lowest, 29·8 ins. and less in a shallow depression over the south of Russia; 30·0 ins. and less in another disturbance approaching the north-west of Norway. No important change occurring over western Europe during day.

## Friday, 17th November.

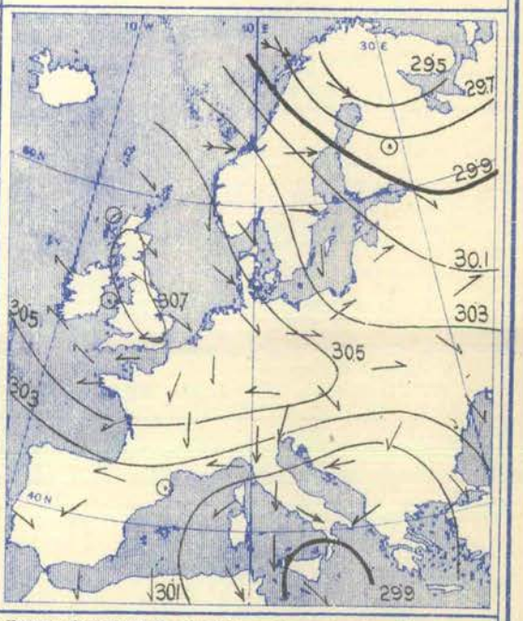
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair or fine over western and southern Europe as a whole, but dull in places, and foggy at some of our eastern and central stations, as well as at Brussels and Wiesbaden. Fine in Sweden, but dull over the northern, eastern and central parts of the Continent generally, with rain in the west of Norway and snow at St. Petersburg. No important change occurring over western Europe during day, but rain falling over southern Italy. Thunderstorm occurring at Algiers.

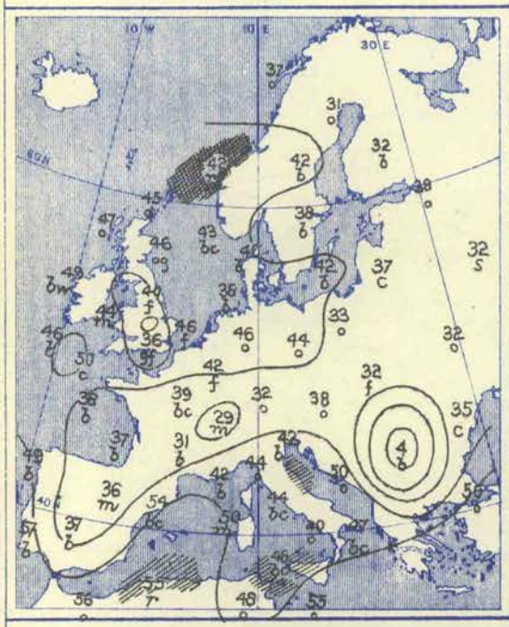
*Temperature* fallen in most places. Morning readings highest, 68° at Algiers, 61° at Malta and La Calle, and 59° at Palma; above 55° at several of the Mediterranean and Spanish coast stations. Lowest, (1) 26° at Munich and 28° at Belfort; (2) 27° at Moscow and 29° at Archangel; at or below the freezing point in many parts of eastern and central Europe, and very little above it in the north of England. Daily maxima below 50° in many parts of the United Kingdom and France, but thermometer exceeding that point on the north and east coasts of Scotland and in the west and south of France, and exceeding 52° on our own extreme south-west coasts · exceeding 60° over the Spanish Peninsula and southern Italy.

*Wind* light to moderate from the Eastward or North-Eastward over the west and south of our Islands and also over France, Spain and northern Italy. Light from West or North-West on our north and east coasts, as well as over the central parts of the Continent generally; Westerly or South-Westerly over the northern parts of Russia and Scandinavia, and strong to a gale in the west of Norway. South-Easterly in Greece; Northerly or North-Westerly over Algeria, Tunis and southern Italy. No important change occurring later.

*Barometer* highest, 30·7 ins. and upwards over the northern and central parts of England, and also over Belgium; 30·3 ins. and upwards in an anticyclone embracing the whole of western and central Europe. Lowest, 29·6 ins. and less in a rather deep depression passing eastwards across the north of Norway; 29·8 ins. and less in a smaller disturbance lying to the south of Italy. No decided change occurring over western Europe during day; Norwegian depression continuing to move eastwards.

## Saturday, 18th November.

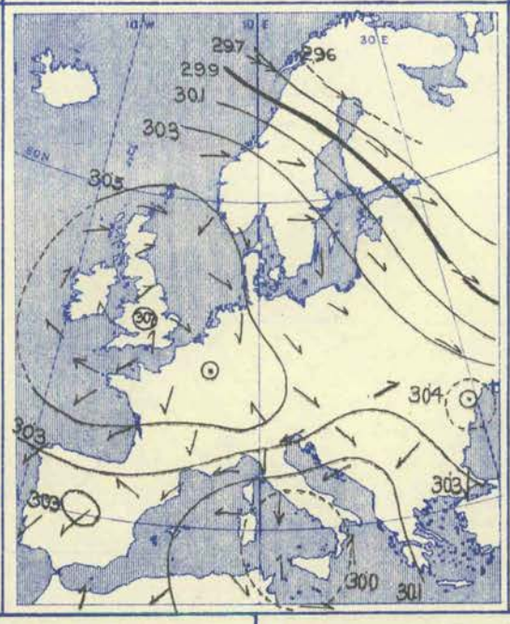
### Temperature and Weather. 8 a.m.

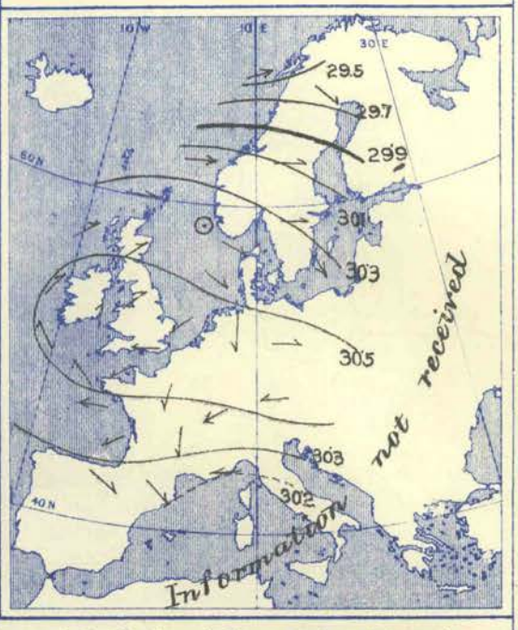


*Weather* in morning foggy over the greater part of England and dull in Scotland, but fine in Ireland. Fine over the western parts of the Continent generally, as well as in Sweden, Spain, and Southern Italy; cloudy or dull over the northern, eastern, and central countries, as a whole, with rain at Christiansund and snow at Moscow. Rain falling later in the north of Scotland and the west of Norway; no important change occurring elsewhere.

*Temperature* fallen in England and Ireland, and also on the eastern shores of the North Sea, changed rather irregularly elsewhere. Morning readings highest, 58° at Oporto, 57° at Lisbon, and 56° at Oran; above 50° at the Mediteranean and Spanish coast stations generally. Lowest (1) 4° at Hermanstadt; (2) 29° at Belfast and 31° at Lyons; (3) 28° at Oxford and 29° at Loughborough. Daily maxima below 45° at several of the English and French stations; thermometer at Loughborough not exceeding 32°. Exceeding 55° on our own extreme south-west coasts, and also in the South of France, and reaching 66° at Lisbon. Sharp frost occurring over central England at night.

### Barometer and Wind. 8 a.m. 6 p.m.






*Wind* Easterly to North-Easterly over the English Channel, France, Spain, and the northern parts of Italy and the Adriatic; light or moderate in force generally, but strong at Trieste and Pesaro. Light from the South-Eastward or Southward in Ireland, and from the South-Westward in Scotland; Westerly over the northern parts of Scandinavia, with a gale at Bodo, North-Westerly over Denmark, Germany, Russia, and the south of Scandinavia. Variable over Southern Italy. No decided change occurring over Western Europe later.

*Barometer* highest, 30·6 ins. to 30·7 ins. over England and the neighbouring parts of Ireland, Scotland, and France; 30·3 ins. and upwards in an anticyclone, covering the whole of western and southern Europe. Lowest, 29·6 ins. and less in a depression over the extreme northern parts of Russia and Scandinavia; 30·0 ins. and less in a shallow disturbance over central and southern Italy and the neighbouring parts of the Mediterranean. Anticyclone giving way gradually during day, but general distribution of pressure remaining unchanged.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⇛⟶ = a heavy gale ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the commencement of the week the weather over western and southern Europe was influenced mainly by an anticyclone having its central area over France, the wind in our Islands being from the Westward or South-Westward, and the weather temporarily fair. In the northern and eastern countries the conditions were affected by a depression which had previously crossed Scandinavia, and which afterwards moved on to central Russia. On the 13th a new disturbance skirted the extreme north-west and north of our Islands in a north-easterly direction, and afterwards passed along the Norwegian coasts, the anticyclone having in the meantime moved eastwards and thrown out a long arm across the Baltic, Sweden, and Finland. At night a more important depression of an elongated form advanced eastwards directly over Ireland and Scotland, and occasioned further rains in the west and north of our Islands, the wind in its rear shifting to the Northward, and blowing a gale in the west of Ireland.

On the 14th the depression moved a little further to the eastward and entirely dispersed, while an anticyclone spread quickly from the westward over our Islands and eventually over the whole of western and central Europe. Fair, dry weather now became general in those regions, but with a good deal of fog or mist in our Islands, and sharp night frosts in the northern and central districts. In the northern countries the weather was affected by large depressions moving across the extreme north of Scandinavia and Russia, the wind being often strong to a gale from the Westward (South-West to North-West), with falls of rain or snow.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 272.

| STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 3·3 | ? | 6 | ? | BRIGHTON | 21·0 | + 4·4 | 34 | + 8 |
| STRATHPEFFER SPA | 7·0 | - 4·2 | 13 | - 6 | WORTHING | 23·2 | ? | 38 | ? |
| EDINBURGH | | | | | BOGNOR | 22·3* | ? | 37* | ? |
| MORPETH | | ? | | ? | EASTBOURNE | 23·8 | + 8·8 | 39 | +15 |
| NEWCASTLE-ON-TYNE | 6·0 | ? | 11 | ? | VENTNOR HOSPITAL | 22·3 | ? | 37 | ? |
| OSWALDKIRK (Yorkshire) | 14·4 | + 2·9 | 24 | + 4 | SOUTHPORT | 8·8 | ? | 15 | ? |
| LOWESTOFT | 7·8 | ? | 13 | ? | COLWYN BAY | 18·9 | ? | 32 | ? |
| HOLLESLEY BAY | 7·5 | ? | 13 | ? | RHYL | 15·6 | ? | 26 | ? |
| SHEFFIELD | 5·0 | ? | 8 | ? | ABERDOVEY | 26·0* | ? | 44* | ? |
| WORKSOP | 3·2 | - 8·4 | 5 | -14 | TENBY | 13·0 | - 2·1 | 22 | - 2 |
| THURCASTON (Leicestershire) | 5·8 | - 7·2 | 10 | -11 | NEWQUAY | 28·4 | +10·4 | 46 | +17 |
| MARGATE | 10·1 | ? | 17 | ? | TORQUAY | 16·5 | + 1·3 | 27 | + 3 |
| WESTBOURNE (Emsworth) | 19·4* | + 5·6 | 32* | + 9 | GUERNSEY | 31·5* | +16·5 | 50* | +27 |
| WATERGATE (Emsworth) | 17·9 | ? | 29 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 47.] *Third Series.* WEEK ENDING SATURDAY, NOVEMBER 25TH, 1899. [*Price 6d.* *Annual Subscription post paid* £1 10s. 0d.

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 278.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 58 | 33 | 51·5 | 41·5 | 46·5 | 6 above | 34 | +18 | 1 | −16 | 2313* | +383 | 650* | − 61 |
| | 1. SCOTLAND, EAST | 57 | 31 | 51·8 | 41·1 | 46·5 | 7 above | 35 | +18 | 3 | −18 | 2540 | +223 | 730 | − 26 |
| | 2. ENGLAND, N.E. | 57 | 30 | 51·7 | 41·6 | 46·7 | 5 above | 35 | +13 | 1 | −14 | 2854 | +335 | 476 | −131 |
| | 3. ENGLAND, EAST | 56 | 29 | 49·6 | 38·7 | 44·2 | 2 above | 29 | + 4 | 9 | − 8 | 3322 | +409 | 464 | −232 |
| | 4. MIDLAND COUNTIES | 56 | 22 | 49·6 | 38·2 | 43·9 | 3 above | 29 | + 5 | 11 | − 8 | 3287 | +404 | 546 | −160 |
| | 5. ENGLAND, SOUTH | 55 | 31 | 50·0 | 41·3 | 45·7 | 2 above | 29 | − 4 | 2 | − 7 | 3744 | +563 | 305 | −214 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 55 | 32 | 51·9 | 44·6 | 48.3 | 7 above | 44 | +22 | 0 | −13 | 2703 | +250 | 425 | −102 |
| | 7. ENGLAND, N.W. | 58 | 30 | 51·3 | 44·2 | 47·8 | 5 above | 41 | +16 | 0 | −10 | 3101 | +411 | 323 | −179 |
| | 8. ENGLAND, S.W. | 55 | 22 | 50·7 | 41·8 | 46·3 | 2 above | 31 | − 6 | 1 | − 5 | 3617 | +617 | 244 | −142 |
| | 9. IRELAND, NORTH | 58 | 31 | 52·0 | 44·1 | 48·1 | 6 above | 43 | +21 | 0 | −13 | 2934 | +350 | 326 | −121 |
| | 10. IRELAND, SOUTH | 57 | 30 | 52·7 | 44·2 | 48·4 | 4 above | 45 | +12 | 0 | − 9 | 3433 | +486 | 250 | − 92 |
| | —CHANNEL ISLANDS | 57 | 39 | 54·6 | 46·3 | 50 4 | 2 above | 59 | + 6 | 0 | − 1 | 4345 | +877 | 81 | − 69 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 278.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 7 | 19 | 6 more | 208* | −10 | 47·4* | + 3·6 | 3 | − 4 | 5 | − 8 | 1192 | +140 | 28 | + 3 |
| | 1. SCOTLAND, EAST | 4 | 2 | 5 less | 181 | + 2 | 29·6 | + 1·0 | 6 | − 4 | 11 | − 8 | 1318 | + 80 | 32 | + 2 |
| | 2. ENGLAND, N.E. | 2 | 2 | 5 less | 155 | −13 | 21·3 | − 2·5 | 9 | − 1 | 17 | − 1 | 1319* | +116 | 33 | + 3 |
| | 3. ENGLAND, EAST | 1 | less than ½ | 6 less | 140 | −24 | 20·8 | − 2·8 | 5 | − 9 | 9 | −15 | 1807 | +269 | 42 | + 6 |
| | 4. MIDLAND COUNTIES | 1 | less than ½ | 6 less | 138 | −23 | 23·4 | − 2·1 | 4 | − 7 | 7 | −13 | 1586 | +305 | 40 | + 8 |
| | 5. ENGLAND, SOUTH | 0 | — | 7 less | 121 | −35 | 22·9 | − 3·3 | 2 | −11 | 3 | −18 | 1932 | +360 | 46 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 4 | 8 | 6 less | 199 | +13 | 46·1 | + 0·8 | 7 | − 3 | 13 | − 6 | 1327 | + 21 | 32 | + 1 |
| | 7. ENGLAND, N.W. | 2 | less than ½ | 8 less | 171 | − 4 | 32·4 | + 0·9 | 4 | − 6 | 7 | −10 | 1565 | +263 | 38 | + 7 |
| | 8. ENGLAND, S.W. | 2 | 1 | 10 less | 155 | −22 | 34·3 | − 1·6 | 5 | − 9 | 9 | −14 | 1863 | +270 | 45 | + 6 |
| | 9. IRELAND, NORTH | 3 | 1 | 7 less | 203 | 0 | 32·9 | − 0·6 | 6 | − 8 | 11 | −13 | 1379 | +159 | 33 | + 4 |
| | 10. IRELAND, SOUTH | 1 | less than ½ | 8 less | 166 | −18 | 35·4 | + 0·6 | 7 | − 8 | 12 | −13 | 1571 | +185 | 38 | + 5 |
| | — CHANNEL ISLANDS | 1 | less than ½ | 9 less | 148 | −40 | 24·7 | − 5·1 | 8 | − 7 | 13 | −11 | 2069 | +307 | 52 | + 7 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* continued dry over the greater part of our Islands, but rain was very frequent in the extreme north of Scotland, and falls were experienced occasionally in the north and north-west generally. Much cloud prevailed in all parts of the Kingdom, and mist or fog was not uncommon in the south-east and south.

*Temperature* was again above the mean, the excess ranging from 2° in England E., S. and S.W., and in the Channel Islands, to as much as 6° in Scotland N. and Ireland N., and to 7° in Scotland E. and W. The highest of the maxima were recorded on rather variable dates, and ranged from 58° in Scotland N. and Ireland N. to 55° in England S., S.W. and N.W., as well as in Scotland W. The lowest of the minima, which were registered during the earlier days of the week, ranged from 22° in the Midland Counties and England S.W., to 33° in Scotland N., and to 39° in the Channel Islands.

*Rainfall* was considerably more than the mean in Scotland N., but less elsewhere; over the greater part of England and Ireland the fall was again scarcely appreciable.

*Bright Sunshine* was less than the mean in all districts. The percentage of the possible duration ranged from 17 in England N.E., to 7 in England N.W. and the Midland Counties, 5 in Scotland N., and 3 in England S.

*Barometer and Wind.*—The distribution of pressure over the southern parts of the Kingdom was almost continuously anticyclonic, but our more northern districts were occasionally affected by depressions moving eastwards or north-eastwards, and whose centres were generally some distance to the northward of Scotland. South-Westerly to North-Westerly winds consequently prevailed over our Islands generally, and although light in the south, they increased considerably at times in the north, and on one or two occasions blew with the force of a strong breeze or moderate gale.

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913 | 70 11 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 277 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 51 | 33 | 49·3 | 38·0 | 43·7 | + 2·6 | 29 | 11 | 7 | 1·97 | + 0·99 | * | * | * | * |
| | Stornoway | 54 | 39 | 52·1 | 43·0 | 47·6 | + 6·5 | 39 | 0 | 7 | 1·37 | + 0·25 | 4·9 | - 3·9 | 10 | - 7 |
| | Wick | 58 | 36 | 53·4 | 41·1 | 47·3 | + 6·7 | 41 | 3 | 7 | 0·54 | - 0·11 | * | * | * | * |
| | Lairg Ⓢ | 57 | 33 | 49.9 | 38·9 | 44.4 | + 5·2 | 30 | 9 | 7 | 1.05 | + 0.25 | * | * | * | * |
| | Glencarron Ⓢ | 52 | 36 | 50·3 | 42·1 | 46·2 | + 7·1 | 29 | 0 | 7 | 4·77 | + 2·50 | * | * | * | * |
| | Fort Augustus Ⓢ | 54 | 39 | 52·6 | 43·2 | 47·9 | + 7·3 | 41 | 0 | 6 | 1·16 | + 0·08 | 0·7 | - 2·3 | 1 | 5 |
| | Fort William Ⓢ | 55 | 39 | 52·7 | 44·5 | 48·6 | + 6·9 | 46 | 0 | 7 | 2·15 | + 0·19 | 2·8 | - 2·7 | 5 | - 5 |
| 1. SCOTLAND E. | Nairn | 57 | 35 | 53·3 | 41·7 | 47·5 | + 8·0 | 40 | 1 | 4 | 0·26 | - 0·26 | * | * | * | * |
| | Aberdeen | 57 | 34 | 52·9 | 41·9 | 47·4 | + 6·7 | 38 | 0 | 5 | 0·17 | - 0·62 | 6·5 | - 5·5 | 13 | - 9 |
| | Braemar Ⓢ | 52 | 31 | 48·8 | 37·4 | 43·1 | + 6·3 | 27 | 13 | 6 | 0·22 | - 0·58 | 0·0† | - 6·2† | 0† | -12† |
| | Ochtertyre Ⓢ | 56 | 38 | 52·4 | 42·7 | 47·6 | + 7·8 | 39 | 0 | 4 | 0·18 | - 0·83 | * | * | * | * |
| | Leith | 56 | 31 | 52·6 | 42·9 | 47·8 | + 6·0 | 41 | 0 | 2 | 0·11 | - 0·39 | * | * | * | * |
| | Marchmont Ⓢ | 54 | 37 | 50·6 | 40·0 | 45·3 | + 6·1 | 32 | 6 | 4 | 0·36 | - 0·49 | 9·3 | - 2·5 | 17 | - 5 |
| 2. ENGLAND, N.E. | Alnwick Castle | 56 | 30 | 51·8 | 41·9 | 46·9 | + 6·1 | 35 | 0 | 3 | 0·48 | - 0·30 | * | * | * | * |
| | Durham | 57 | 30 | 52·8 | 41·1 | 47·0 | + 6·6 | 39 | 3 | 1 | 0·05 | - 0·57 | 13·1 | + 1·8 | 24 | + 3 |
| | Shields | 55 | 33 | 51·9 | 41·6 | 46·8 | + 5·1 | 35 | 1 | 3 | 0·16 | - 0·40 | * | * | * | * |
| | Scarborough Ⓜ | | | | | | | | | | | | | | | |
| | Spurn Head | 53 | 34 | 50·3 | 41·9 | 46·1 | + 3·4 | 29 | 0 | 0 | — | - 0·52 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 52 | 30 | 48·7 | 37·9 | 43·3 | + 2·1 | 26 | 11 | 2 | 0·13 | - 0·49 | 1·7 | - 9·8 | 3 | -17 |
| | Yarmouth | 53 | 35 | 49·6 | 40·0 | 44·8 | + 2·6 | 28 | 6 | 2 | 0·03 | - 0·65 | * | * | * | * |
| | Geldeston | 54 | 32 | 50·2 | 39·6 | 44·9 | + 2·6 | 30 | 7 | 1 | 0·03 | - 0·57 | 4·7 | - 9·0 | 8 | -16 |
| | Cambridge | 56 | 29 | 50·4 | 38·5 | 44·5 | + 3·2 | 32 | 10 | 0 | 0·01 | - 0·44 | 4·4 | - 9·2 | 8 | -15 |
| | Felixstowe | 56 | 35 | 49·6 | 39·8 | 44·7 | + 1·8 | 28 | 6 | 1 | 0·02 | ? | 10·5 | ? | 18 | ? |
| | Rothamsted | 53 | 30 | 49·3 | 36·4 | 42·9 | + 1·9 | 30 | 16 | 0 | 0·01‡ | - 0·60 | 4.5 | - 8·2 | 8 | -14 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 55 | 27 | 52·3 | 39·6 | 46·0 | + 4·7 | 38 | 7 | 1 | 0·05 | - 0·42 | * | * | * | * |
| | Loughborough | 53 | 24 | 50·4 | 38·0 | 44·2 | + 1·9 | 32 | 11 | 1 | 0·07 | - 0·41 | * | * | * | * |
| | Stamford (Ketton) | 54 | 22 | 49·9 | 35·1 | 42·5 | + 0·9 | 32 | 19 | 1 | 0·02 | - 0·66 | * | * | * | * |
| | Cheadle Ⓜ | 52 | 25 | 47·9 | 39·5 | 43·7 | + 3·5 | 22 | 7 | 2 | 0·05 | - 0·60 | * | * | * | * |
| | Shirley (near Solihull) | 53 | 24 | 48·5 | 38·4 | 43·5 | + 2·0 | 26 | 10 | 1 | 0·05 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 55 | 25 | 49·5 | 40·0 | 44·8 | + 4·0 | 28 | 6 | 1 | 0·04 | - 0·74 | 2·8 | - 7·9 | 5 | -13 |
| | Hereford (Belmont) Ⓜ | 56 | 26 | 50·4 | 38·9 | 44·7 | + 2·7 | 32 | 9 | 0 | — | — 0·62 | * | * | * | * |
| | Cirencester | 51 | 23 | 48·7 | 36·9 | 42·8 | + 1·8 | 27 | 14 | 1 | 0·03 | - 0·67 | 6·0 | - 5·7 | 10 | +10 |
| | Oxford | 52 | 25 | 48·7 | 37·6 | 43·2 | + 1·2 | 27 | 12 | 0 | — | - 0·58 | 3·1 | - 8·9 | 5 | -16 |
| 5. ENGLAND, S. | London | 53 | 33 | 49·3 | 38·7 | 44·0 | + 1·2 | 28 | 9 | 0 | — | - 0·49 | 0·9† | - 6·9† | 2† | -11† |
| | Cranley Ⓜ | 53 | 34 | 49·3 | 43·7 | 46·5 | + 3·6 | 32 | 0 | 0 | — | ? | * | * | * | * |
| | Dungeness | 55 | 33 | 51·3 | 40·4 | 45·9 | + 1·9 | 34 | 4 | 1 | 0·02 | - 0·73 | * | * | * | * |
| | Hastings (St. Leonards) | 54 | 37 | 49·7 | 41·6 | 45·7 | + 1·8 | 28 | 1 | 0 | — | - 0·72 | 1·7 | -13·3 | 3 | -22 |
| | Southampton | 53 | 31 | 49·9 | 40·7 | 45·3 | + 1·6 | 29 | 4 | 0 | — | - 0·70 | 4·8 | - 8·2 | 8 | -13 |
| | Portland Bill | 54 | 38 | 52·4 | 45·0 | 48·7 | + 3·1 | 47 | 0 | 0 | — | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 51 | 33 | 48·3 | 39·0 | 43·7 | + 2·7 | 25 | 8 | 1 | 0·03 | - 0·80 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 55 | 39 | 52·8 | 44·8 | 48·8 | + 6·7 | 48 | 0 | 7 | 2·46 | + 0·36 | * | * | * | * |
| | Glasgow | 53 | 40 | 51·2 | 44·7 | 48·0 | + 8·0 | 42 | 0 | 5 | 0·49 | - 0·40 | 2·4 | - 4·2 | 5 | - 7 |
| | Glenlee Ⓢ | 55 | 32 | 51·6 | 43·1 | 47·4 | + 7·4 | 38 | 0 | 5 | 0·19 | - 1·31 | * | * | * | * |
| | Douglas (Isle of Man) | 54 | 39 | 51·9 | 45·9 | 48·9 | + 5·0 | 48 | 0 | 9 | — | - 1·03 | 11·9 | - 1·9 | 21 | - 4 |
| 7. ENGLAND, N.W. | Newton Reigny | 58 | 33 | 51·4 | 42·4 | 46·9 | + 7·9 | 34 | 0 | 3 | 0·08 | ? | 7·0 | ? | 13 | ? |
| | Stonyhurst | 52 | 35 | 49·6 | 43·6 | 46·6 | + 4·8 | 32 | 0 | 3 | 0·06 | - 0·95 | 2·2 | - 7·3 | 4 | -12 |
| | Blackpool Ⓜ | 53 | 32 | 52·0 | 43·8 | 47·9 | + 5·6 | 41 | 0 | 1 | 0·02 | - 0·73 | 3·8 | - 5·2 | 7 | - 9 |
| | Manchester (Prestwich) | 53 | 30 | 49·6 | 42.4 | 46·0 | + 4·5 | 28 | 0 | 2 | 0·04 | - 0·76 | 0·2 | ? | 0 | ? |
| | Liverpool Obsy. (Bidston) | 55 | 31 | 51·9 | 43·4 | 47·7 | + 4·8 | 40 | 0 | 2 | 0·03 | - 0·62 | 1·8 | ? | 3 | ? |
| | Llandudno Ⓜ | 55 | 41 | 52·7 | 47·8 | 50·3 | + 5·4 | 58 | 0 | 1 | 0·02 | - 0·73 | 6·5 | - 3·7 | 11 | - 7 |
| | Holyhead | 54 | 43 | 52·1 | 46·3 | 49·2 | + 3·2 | 50 | 0 | 0 | — | - 0·88 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 52 | 22 | 49·7 | 37·0 | 43·4 | + 1·4 | 31 | 14 | 3 | 0·13 | - 1·04 | * | * | * | * |
| | Pembroke | 55 | 43 | 53·3 | 47·7 | 50·5 | + 4·2 | 60 | 0 | 2 | 0·06 | - 0·89 | 2·8 | -10·2 | 5 | -17 |
| | Clifton | 52 | 29 | 49·5 | 40·6 | 45·1 | + 3·1 | 28 | 4 | 2 | 0·02 | - 0·76 | * | * | * | * |
| | Arlington (N. Devon) | 52 | 29 | 49·6 | 39·3 | 44·5 | + 1.7 | 29 | 8 | 4 | 0·21 | - 1·19 | * | * | * | * |
| | Cullompton Ⓜ | 53 | 29 | 50·0 | 39·8 | 44·9 | + 1·7 | 30 | 6 | 0 | — | - 0·80 | 3·8 | - 7·2 | 6 | -12 |
| | Falmouth | 53 | 41 | 51·9 | 45·8 | 48·9 | + 1·7 | 48 | 0 | 1 | 0·02 | - 1·21 | 7·9 | - 7·1 | 13 | -12 |
| | Plymouth | 54 | 32 | 51·2 | 42·5 | 46·9 | + 0·9 | 34 | 0 | 0 | — | - 0·91 | 4·6 | - 8·4 | 8 | -13 |
| 9. IRELAND, N. | Malin Head | 54 | 42 | 52·1 | 46·9 | 49·5 | + 5·8 | 53 | 0 | 4 | 0·08 | ? | * | * | * | * |
| | Londonderry | 53 | 41 | 52·3 | 44·7 | 48·5 | + 6·0 | 46 | 0 | 5 | 0·17 | - 0·79 | * | * | * | * |
| | Edenfel (Omagh) | 53 | 31 | 50·6 | 41·1 | 45·9 | + 5·7 | 31 | 3 | 3 | 0·11 | - 0·69 | * | * | * | * |
| | Blacksod | 55 | 44 | 53·3 | 47·1 | 50·2 | + 5·7 | 57 | 0 | 5 | 0·13 | ? | * | * | * | * |
| | Markree Castle | 58 | 31 | 53·0 | 42·8 | 47·9 | + 5·9 | 41 | 0 | 3 | 0·13 | - 0·77 | 6·2 | - 6·5 | 11 | -11 |
| | Armagh | 55 | 39 | 51·2 | 43·9 | 47·6 | + 6·1 | 39 | 0 | 2 | 0·02 | - 0·60 | 5·8 | - 7·6 | 10 | -14 |
| | Donaghadee | 53 | 36 | 51·4 | 42·3 | 46·9 | + 3·3 | 34 | 0 | 2 | 0·03 | - 0·60 | * | * | * | * |
| 10. IRELAND, S. | Dublin | 57 | 38 | 53·2 | 46·6 | 49·9 | + 5·7 | 55 | 0 | 2 | 0·02 | - 0·48 | 11·7 | - 4·3 | 21 | - 7 |
| | Parsonstown | 55 | 30 | 51·3 | 41·1 | 46·2 | + 4·2 | 33 | 3 | 3 | 0·05 | - 0·69 | 4·2 | -10·3 | 7 | -17 |
| | Kilkenny | 54 | 30 | 51·3 | 40·9 | 46·1 | + 2·3 | 33 | 3 | 0 | — | - 0·62 | * | * | * | * |
| | Roche's Point | 54 | 43 | 53·0 | 47·3 | 50·2 | + 4·3 | 57 | 0 | 0 | — | - 1·14 | * | * | * | * |
| | Valencia | 55 | 41 | 53·7 | 46·3 | 50·0 | + 3·1 | 56 | 0 | 2 | 0·03 | - 1·24 | 5·1 | - 3·6 | 9 | -15 |
| | Killarney | 57 | 35 | 53·4 | 42·8 | 48·1 | + 3·4 | 43 | 0 | 2 | 0·05 | ? | * | * | * | * |
| | Foynes | 56 | 35 | 52·9 | 44·2 | 48·6 | + 4·4 | 46 | 0 | 0 | — | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 57 | 46 | 56·1 | 47·9 | 52·0 | + 3·2 | 70 | 0 | 1 | 0·03 | - 0·90 | 10·1 | ? | 17 | ? |
| | Jersey | 55 | 39 | 53·0 | 44·6 | 48·8 | + 1·3 | 48 | 0 | 1 | 0·02 | - 0·91 | 7·0 | - 8·5 | 11 | -14 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

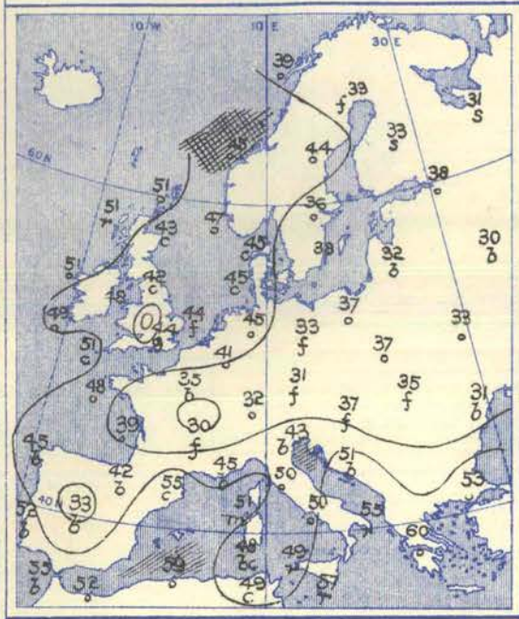
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

‡ Wet fog or dew.

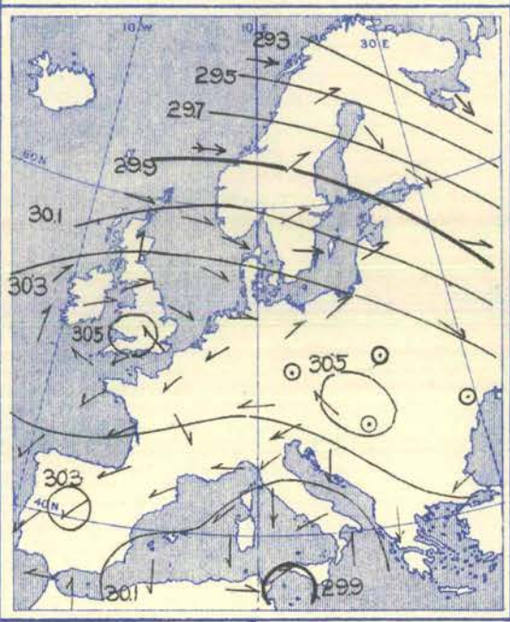
Note.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 19th November.

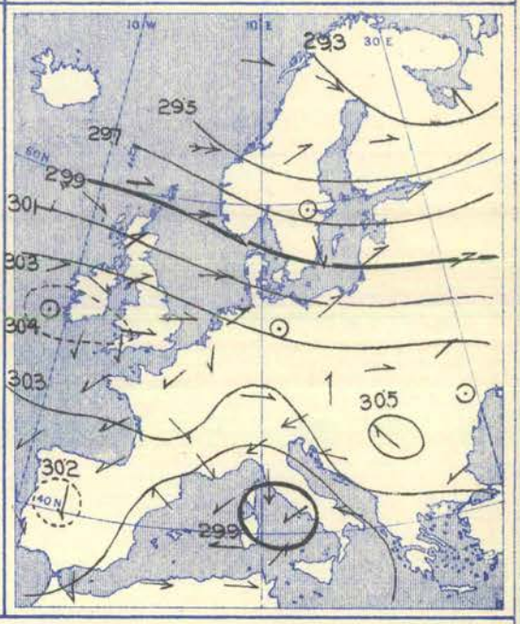
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over southern, fair over south-eastern Europe, dull and gloomy over all the north-western countries, with rain in the extreme north-west, snow at Kuopio, dull in many parts of Russia. A little rain later over our northern and north-western districts, and at Christiansund, and sky clearing at night over our southern and south-eastern counties.

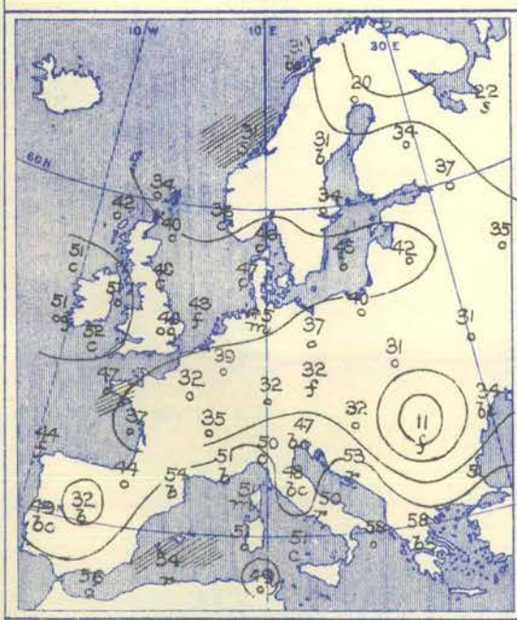
*Temperature* in morning ranging from 59° at Algiers, 57° at Malta, and 57° at Barcelona, and from Blacksod Point in Ireland to (1) 31° at Archangel, 33° at Kuopio, and 35° at Karlstad, and to 30° at Moscow, and below 35° in all parts of eastern and central Europe, to 25° at Oxford and 27° at Loughborough. Rising later to more than 50° in almost all parts of our islands, but not exceeding 46° over our south-eastern counties and at Berlin; 47° at Paris, touching 57° at Nice.

*Wind* (1) Easterly to Northerly over the Mediterranean, and strong in places; (2) calm and very light and variable over the central countries; (3) Westerly and South-Westerly in the north and north-west. No great change later, but moderate Northerly gales felt in many parts of Italy, and a Southerly breeze at Brindisi.

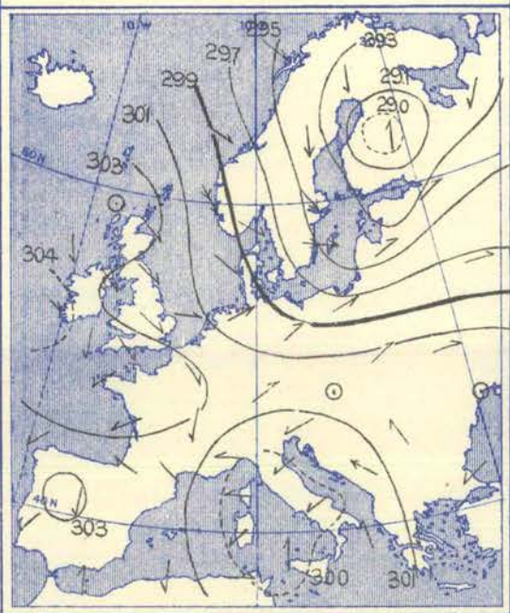
*Barometer* in morning highest, 30·5 ins. and more over Austria, Hungary, and exceeding 30·3 ins. over the western, the central and south-eastern countries generally. Lowest (1) 29·3 ins. to 29·4 ins. over northern Europe (gradients rather steep); (2) 30·2 ins. and less over the extreme north of Scotland; (3) 29·9 ins. and less in a depression between Tunis and Malta, this Southern depression moving north-eastwards later to Naples.

## Monday, 20th November.

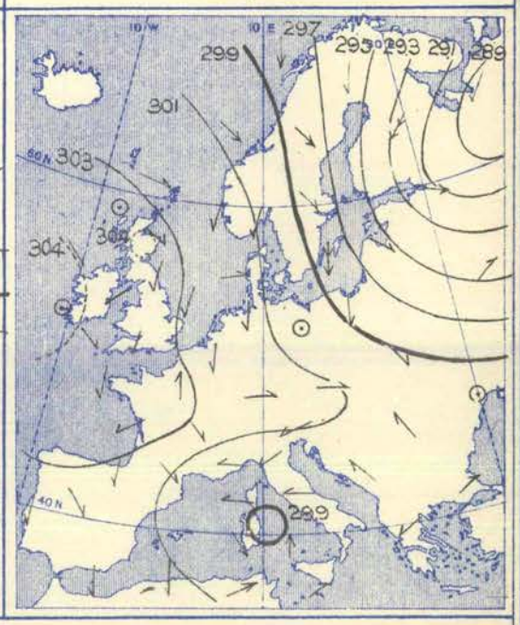
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning gloomy and cloudy over our Islands, with fog in many places; dull and hazy over France, fine over the Riviera; dull and unsettled in most parts of northern Europe, with rain in the Gulf of Finland, snow in several parts of Scandinavia. Rain later in Scotland, and a little in the Netherlands; snow at Faerder.

*Temperature* becoming unsteady—fallen considerably in Scotland, Norway, and the north of Sweden. Morning readings, highest, (1) 58° at Athens, 54° at Algiers and Barcelona, 53° at Lasina; (2) 52° at Scilly, Pembroke and Rochefort, 50° at Donaghadee and Malin Head. Lowest, (1) 20° at Haparanda, 28° at Kuopio, 31° at Hernösand; (2) 34° at Sumburgh Head, 40° at Aberdeen, also at Oxford and in London; (3) 11° at Kharkow, 27° at Cracow, 32° at Munich and Paris. Rising later to above 50° over Ireland and England as a whole, to 56 at Jersey, 61° at Nice, not exceeding 41° at Paris.

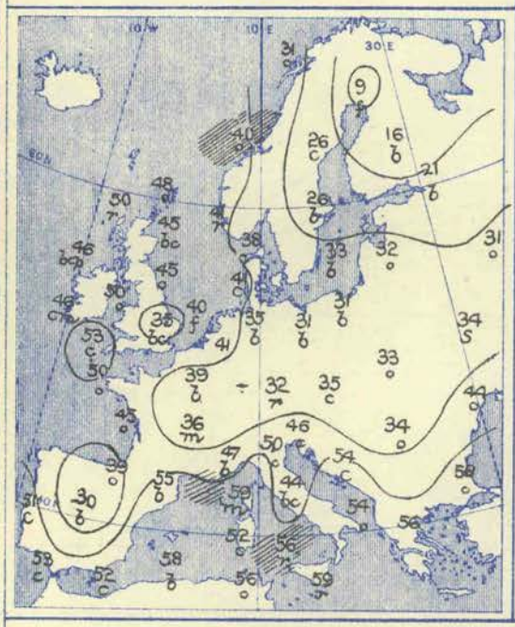
*Wind* (1) moderate to strong from north-west over Scandinavia, fresh to a gale from west over the Baltic, fresh to moderate from south-west and south over Finland; (2) light and anti-cyclonic over Ireland, England, France, and the Bay of Biscay; (3) fresh but cyclonic over the Mediterranean, freshening over the North Sea later.

*Barometer* highest, 30·42 ins. at Valencia, and exceeding 30·3 ins. over Scotland, Ireland, the the south-west of England, Brittany and the Bay of Biscay; (2) 30·3 ins. and more to 30·2 ins. over south-east Europe. Lowest, below 29·0 in. a depression over Finland, some very slight secondary disturbance over the North Sea and another over the Irish Sea. Atlantic anti-cyclone spreading eastwards from the Atlantic, but a new fall setting in over Finmark.

## Tuesday, 21st November.

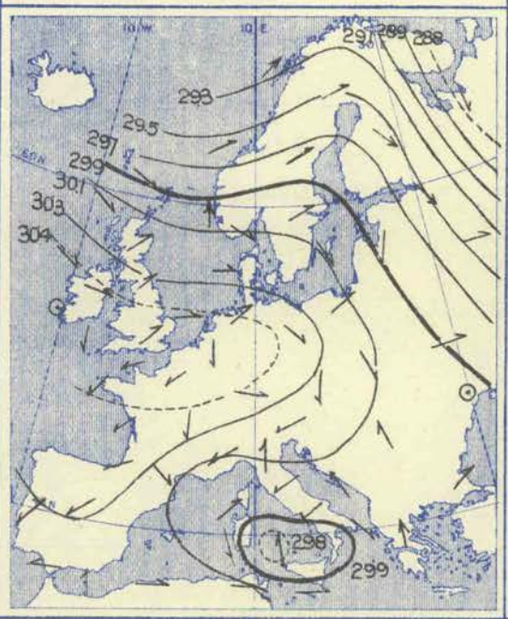
### Temperature and Weather.

8 a.m.

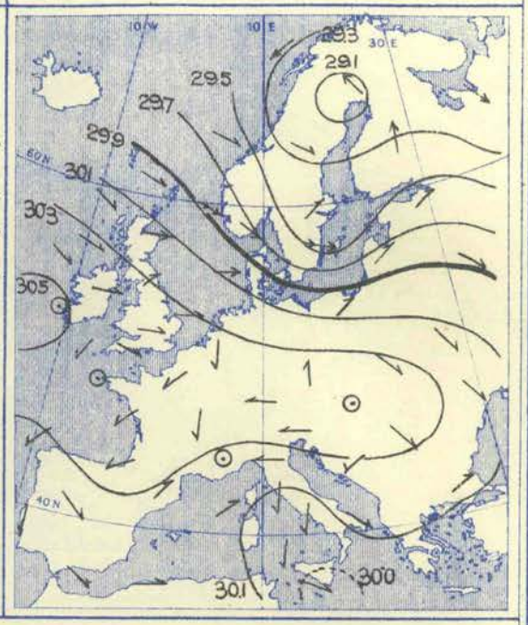


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine over the Mediterranean; fair and quiet over Spain, France, and the south of our Islands, but dull and gloomy in most places; very unsettled over northern Europe, with snow and rain in many localities. Half-an-inch of rain in the Shetlands later, but not much at the Scandinavian stations. A little in Germany.

*Temperature* in morning highest, 61° at Algiers, 60° at Malta, 52° at Barcelona, 53° to 50° on the coasts of Wales and the south-west of England, 51° at the Helder, 50° at Malin Head. Lowest, (1) 8° Fahr. at Archangel, 14° at Haparanda, 15° at Moscow, 28° at Kuopio; (2) 22° at Kiev, 25° at Vienna, 32° at Belfort, 36° at Paris. Rising later to between 55° and 50° over the western and southern parts of our Islands, to 55° at Brest, and 59° at Nice, not exceeding 44° at Paris.

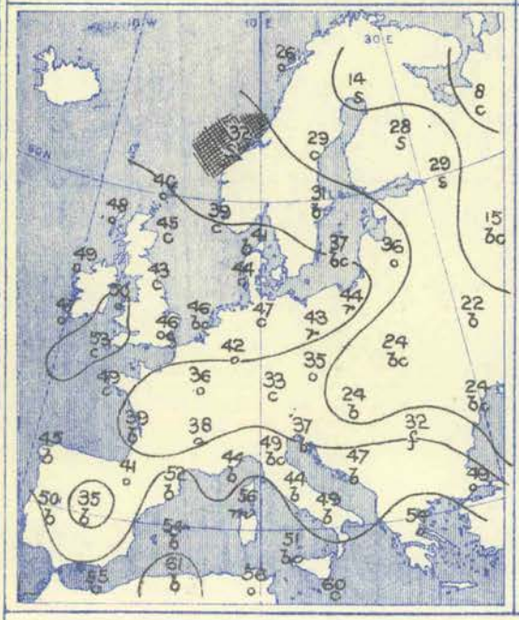
*Wind* (1) very light and anticyclonic over the western and south-western countries—the direction being mainly North-Westerly in Scotland and Wales; (2) strong to a gale from North-West over the Gulf of Bothnia and the Baltic; Southerly, light, at St. Petersburg; South-Westerly at Moscow; South-Easterly at Archangel. Backing to West in Scotland, and South-West in Ireland later.

*Barometer* in morning highest, 30·5 ins. and more to 30·4 ins. in a rather complex anticyclone covering Spain, France, and our south-western districts. Lowest, 28·9 ins. and less in a deep depression over Finland, and extending over northern Europe as a whole. Rising over England during the day, but beginning to fall again on our extreme west and north-west coasts towards night.

## Wednesday, 22nd November.

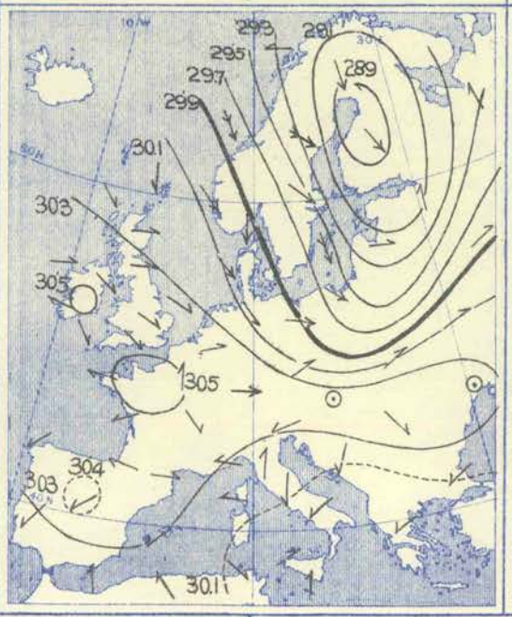
### Temperature and Weather.

8 a.m.

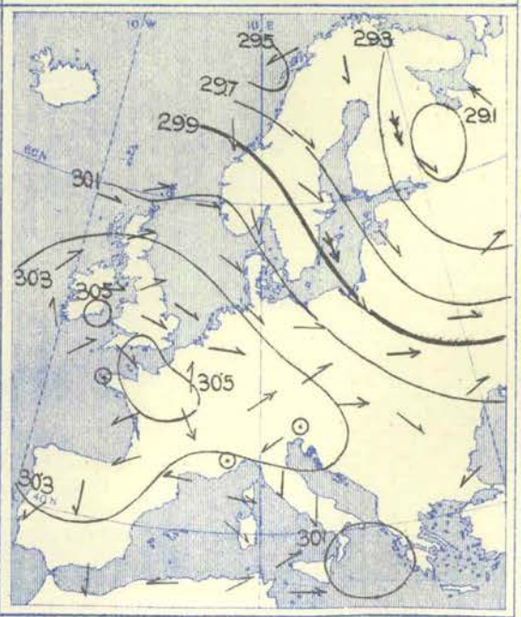


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine (1) over France and north Germany; (2) over Sweden and Finland; dull and unsettled over Norway and our Islands, with cold rain and snow in places. Some rain or sleet during the day at the most northern stations, and at Berlin; sky clearing temporarily in the extreme east of England and at Berlin.

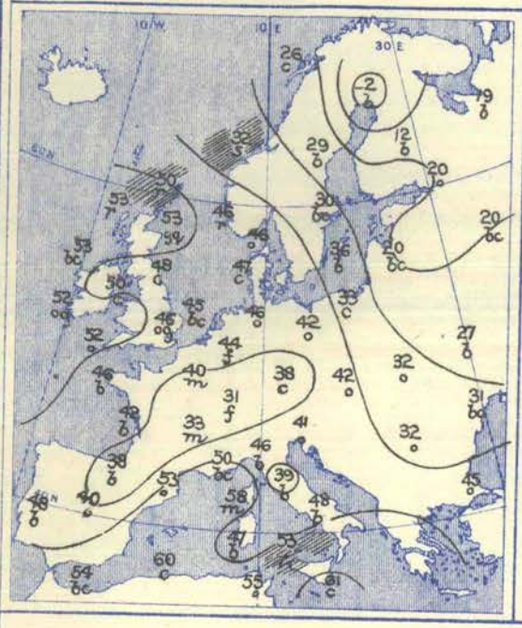
*Temperature* fallen fast over the Baltic, Finland, and the southern half of the North Sea. Morning readings highest, 59° at Malta, 58° at Algiers, 53° at Scilly, 50° at Brest, as well as at Stornoway. Lowest, (1) 9° at Uleaborg, 16° at Kuopio, 21° at St. Petersburg and Archangel; (2) 29° at Breslau, 32° at Munich, 39° at Paris; (3) 35° in London, 41° at Loughborough. Rising later to between 56° and 50° in our Islands, to 52° at the Helder, 54° at Belfort, 59° at Nice, but not exceeding 46° at Oxford, London, and Paris.

*Wind* (1) North-Westerly to Northerly strong over Finland and north-western Russia; Westerly at Moscow; (2) North-Westerly at our northern stations; South-Westerly in the north-west of Norway; Southerly at Skudesnaes; (3) light and anticyclonic in the south-west and south of our Islands and the north of France; (4) cyclonic (light to fresh) over the Mediterranean. The North-Westerly wind becoming strong in Scotland at night; the wind in the south of Norway veering somewhat.

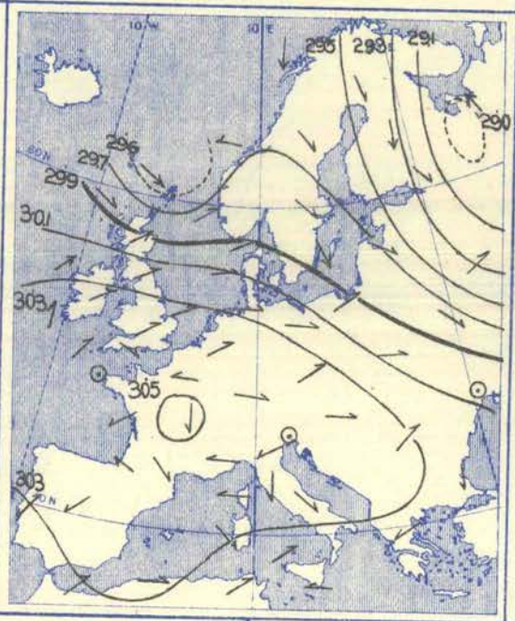
*Barometer* highest, 30·4 ins. and more at our southern stations, and those in the north of France and over Belgium. Lowest, (1) 28·8 ins. and less over the north of Russia and the White Sea; (2) 29·3 ins. and less in a new disturbance approaching Finmark; gradients steep over the northern countries; (3) 29·8 ins. and less in a third depression near Palermo. Rising later over the greater part of our Islands; falling fast over Scandinavia and the Baltic.

## Thursday, 23rd November.

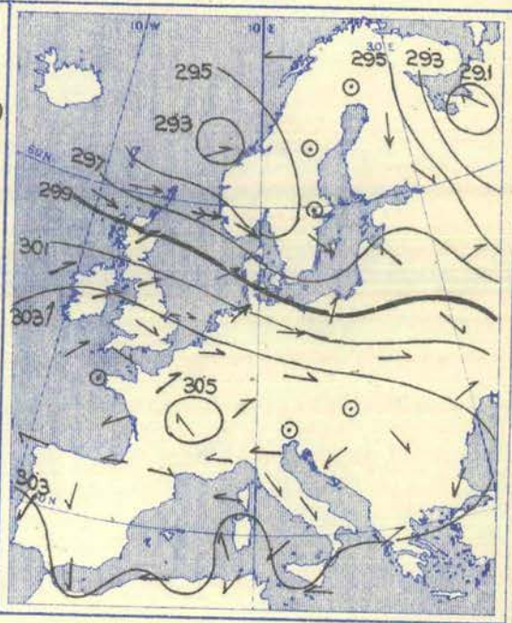
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over the Mediterranean and southern Europe, fair and dry, but cloudy over Germany, France, and the greater part of our Islands; changeable over Russia and Sweden, but fine at time of observation. Rain later over Scandinavia (snow in places); much rain in the Shetlands, some in the north of Scotland.

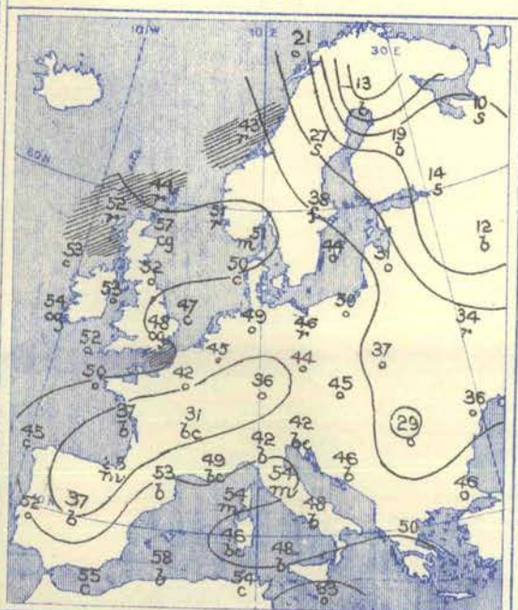
*Temperature* in morning below zero, Fahr., at Haparanda, 19° at Archangel, 20° at St. Petersburg, Moscow and Riga, 28° at Karlstad, 31° to 32° over the south of Russia. Highest, 53° to 50° in Scotland, and rather lower on our south-western and southern coasts. Rising to 58° in some parts of Scotland later, to 57° at Scilly, and to above 50° almost all over our Islands and the west of France.

*Wind* still North-West, but less strong over Russia and the Baltic; strong to fresh Westerly to South-Westerly over Ireland and Scotland; light Westerly over the south of England; East in the west of France. No change of importance later.

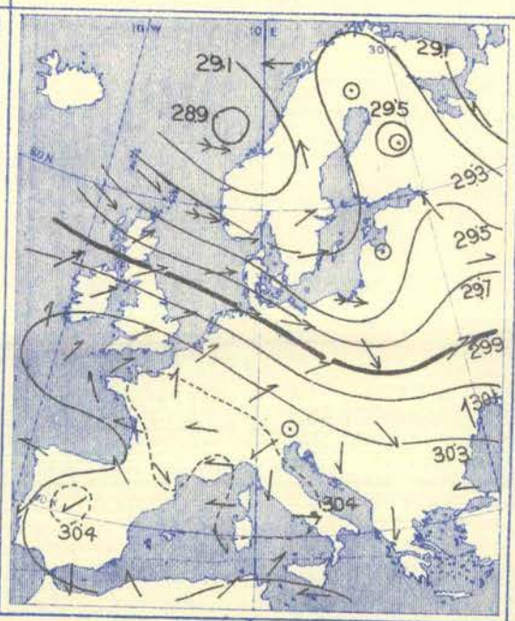
*Barometer* still highest, 30·5 ins. and more to 30·4 ins. over France and the south of our Islands. Lowest, (1) 29·0 ins. and less in the north of Russia; (2) 29·6 ins. and less in a depression near the Shetlands, gradients steep over Russia and Scotland. Falling slightly and unsteadily in Ireland all day, rising over the Baltic, as the northern depression in Russia passed off.

## Friday, 24th November.

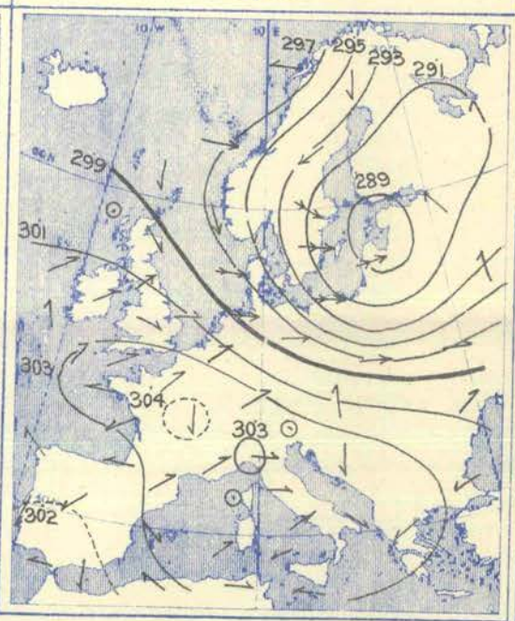
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the southern half of Europe, cloudy in the more northern countries (excepting Finland), with slight snow or rain in several places. Some rainfall (rain or melted snow) at the northern stations later, as well as over Sweden, weather remaining fair over Spain, France, and the greater part of England and Ireland.

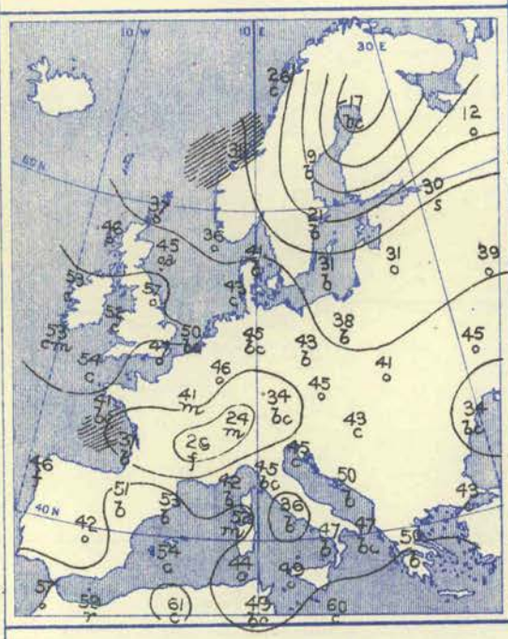
*Temperature* rising over Central Europe, very high over the United Kingdom, especially in the north, low over the Continent. Morning readings highest, (1) 57° to 50° over Scotland and Ireland, 51° at Skudesnaes; (2) 52° to 50° on our southern coasts and over Brittany; (3) 50° to 49° on the north coast of Germany. Lowest, (1) − 13° Fahr. at Haparanda, + 12° at Moscow, 14° at St. Petersburgh, 27° at Hernösand; (2) 25° at Belfort, 31° at Lyons, 42° at Paris. Remaining high over our Islands all day, touching 57° at Nairn and Scilly, 54° at Cape Gres Nez, Brest and Lorient, 57° at Nice, 58° at Perpignan. Exceeding 60° in many parts of southern Europe, and reaching 68° at San Fernando.

*Wind* light and variable (anticyclonic) over Spain, France, and the south of our Islands; stronger and mainly cyclonic over the more northern countries, and blowing very strongly from the westward both in Scotland and the Baltic. Easterly to South-Easterly over Finland. The Westerly wind dying down at our northern stations later, and veering to North, but a North-West gale setting in over the south of Norway, and a West gale over Denmark and the Baltic.

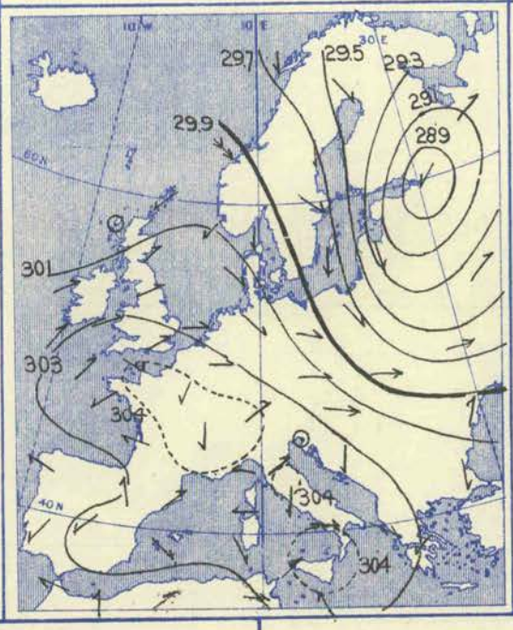
*Barometer* highest, 30·5 ins. to 30·4 ins. in a rather complex anticyclone covering Spain, France, western Germany and the south of our Islands. Lowest, (1) 29·1 ins. at Archangel; (2) 28·9 ins. in a depression off Christiansund, and 29·2 ins. in a secondary over the south of Sweden. Rising rapidly at our most northern stations later and rise spreading to Scandinavia.

## Saturday, 25th November.

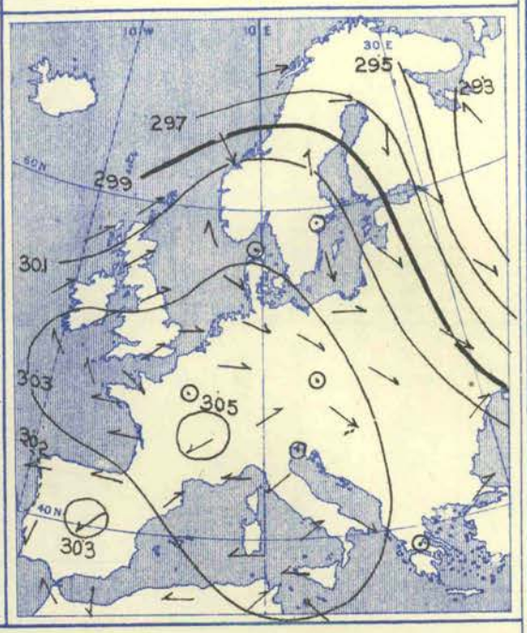
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over the Mediterranean and the southern parts of the Continent; cloudy, but fair, over southern Russia, the British Islands, and North Sea; very unsettled over northern Europe and Russia, with rain in many places. Rain in small quantity later in the north of Ireland, the north of Scotland, and the west of Norway; remaining dull and unsettled over the remainder of western Europe. Snow occurring at Karlstad, and a thunderstorm at Sfax.

*Temperature* again high over the United Kingdom as a whole, low over northern Europe and south Germany. Morning readings highest, 50° to 54° on our west and south-west coasts, 51° at Biarritz, 53° at Lisbon. Lowest, (1) −17° at Haparanda, + 12° at Archangel, 26° at Bodö, 21° at Stockholm, 39° at Moscow; (2) 24° at Belfort, 30° at Limoges, 34° at Munich, but above 40° over central Europe as a whole. Rising later to above 55° in many parts of our Islands, but not exceeding 45° in many parts of Germany.

*Wind* (1) Northerly to Westerly over northern and central Europe, and blowing hard at some of the Baltic stations; (2) South-Westerly, light to moderate, in the west of the British Isles; (3) light and anticyclonic over our Islands and France Increasing from South and South-West in Ireland later; the Northerly gale in the Baltic dying down.

*Barometer* in morning highest, 30·4 ins. and more over France and the south of the British Isles, and exceeding 30·0 ins. all over the United Kingdom. Lowest, 28·8 ins. at St. Petersburg, and below 29·4 ins. over northern Europe generally. Rising in our Islands all day, but rise ceasing in west of Ireland during afternoon.

### GENERAL NOTES.

During the past week pressure has been continuously high and very uniform over Spain, France and the southern parts of our Islands, and at times the high pressure area has extended temporarily eastwards to south-eastern Europe, and northwards in the form of a ridge to Scandinavia. Within the area the barometer has varied from a little above 30·5 ins. to 30·3 ins. in height, and though slightly unsteady at times has not changed much. In the extreme north-west and north depressions of considerable size have appeared from time to time causing South-Westerly to Westerly or North-Westerly gales and strong winds, accompanied by frequent, but not heavy rain, and somewhat similar conditions have been felt over the Baltic and north Germany.

Temperature as a whole has been low over northern and central Europe, high over the British Islands and their neighbourhood. On Thursday a maximum of 58° was recorded at Wick, and 55° in the north-west of Ireland; on Friday, 57° was registered both at Scilly, Aberdeen and Nairn, and after a slight temporary chill on Saturday morning the thermometer speedily rose again to 55° and more in several places.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 278.

| STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 1·7 | ? | 3 | ? | BRIGHTON | 0·4 | −13·1 | 1 | −22 |
| STRATHPEFFER SPA | 2·5 | − 6·3 | 5 | −12 | WORTHING | 1·0 | ? | 2 | ? |
| EDINBURGH | 7·1 | − 3·5 | 13 | − 7 | BOGNOR | 0·7* | ? | 1* | ? |
| MORPETH | | ? | | ? | EASTBOURNE | 0·9 | −12·1 | 2 | −21 |
| NEWCASTLE-ON-TYNE | 9·5 | ? | 18 | ? | VENTNOR HOSPITAL | 1·4 | ? | 2 | ? |
| OSWALDKIRK (Yorkshire) | 5·5 | − 5·0 | 10 | − 9 | SOUTHPORT | 3·5 | ? | 6 | ? |
| LOWESTOFT | 6·9 | ? | 12 | ? | COLWYN BAY | 8·7 | ? | 15 | ? |
| HOLLESLEY BAY | 5·0 | ? | 9 | ? | RHYL | * | | * | |
| SHEFFIELD | 7·0 | ? | 12 | ? | ABERDOVEY | 2·9* | ? | 5* | ? |
| WORKSOP | 6·9 | − 3·1 | 12 | − 6 | TENBY | 2·2 | −10·8 | 4 | −18 |
| THURCASTON (Leicestershire) | 0·0 | −11·0 | 0 | −19 | NEWQUAY | 8·7 | − 7·3 | 15 | −12 |
| MARGATE | 0·2 | −13·5 | 0 | −22 | TORQUAY | 7·8 | − 5·7 | 13 | −10 |
| WESTBOURNE (Emsworth) | 4·0* | − 8·0 | 7* | −13 | GUERNSEY | 7·2* | − 5·7 | 12* | − 8 |
| WATERGATE (Emsworth) | 4·3 | ? | 7 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

### REPORTS received too late for insertion in their proper places.

| DATE OF REPORT. | NAME OF STATIONS. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week ending Nov 4th, 1876 | Oswaldkirk | — | — | — | — | — | — | — | — | — | — | — | 11·0 | − 4·0 | 17 | − 6 |
| " " " | Newquay | — | — | — | — | — | — | — | — | — | — | — | 19·3 | − 2·7 | 29 | − 3 |
| " " 11th. | Rhyl | — | — | — | — | — | — | — | — | — | — | — | 16·7 | ? | 27 | ? |
| " " " | Oxford | — | — | — | — | — | — | — | — | — | — | — | 17·6 | + 0·3 | 28 | + 3 |
| " " 18th. | Laing | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| " " " | Edinburgh | 61 | 25 | 50·8 | 35·7 | 43·5 | + 3·3 | 36 | 18 | 4 | 0·37 | − 0·43 | 12·5 | − 0·5 | 32 | 0 |
| " " " | Nairn | — | — | — | — | — | — | — | — | — | — | — | 18·0 | ? | 32 | ? |

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 48.] *Third Series.* WEEK ENDING SATURDAY, DECEMBER 2ND, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 284.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 58 | 31 | 51·1 | 44·4 | 47·8 | 8 above | 41 | +28 | 0 | −18 | 2354 | +411 | 650 | − 79 |
| | 1. SCOTLAND, EAST | 58 | 27 | 51·1 | 43·3 | 47·2 | 9 above | 36 | +22 | 0 | −23 | 2576 | +245 | 730 | − 49 |
| | 2. ENGLAND, N.E. | 56 | 33 | 52·0 | 44·5 | 48·3 | 8 above | 44 | +26 | 0 | −17 | 2898 | +361 | 476 | −148 |
| | 3. ENGLAND, EAST | 56 | 28 | 51·3 | 39·2 | 45·3 | 5 above | 35 | +15 | 8 | −12 | 3357 | +424 | 472 | −234 |
| | 4. MIDLAND COUNTIES | 59 | 30 | 51·9 | 39·8 | 45·9 | 5 above | 37 | +17 | 6 | −15 | 3324 | +421 | 552 | −175 |
| | 5. ENGLAND, SOUTH | 58 | 29 | 52·6 | 41·1 | 46·9 | 5 above | 38 | + 9 | 3 | − 7 | 3782 | +572 | 308 | −221 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 57 | 28 | 51·6 | 45·4 | 48·5 | 8 above | 46 | +27 | 0 | −15 | 2748* | +276 | 425 | −117 |
| | 7. ENGLAND, N.W. | 57 | 33 | 52·0 | 45·3 | 48·6 | 7 above | 46 | +25 | 0 | −12 | 3147 | +436 | 323 | −191 |
| | 8. ENGLAND, S.W. | 56 | 30 | 52·2 | 43·1 | 47·7 | 4 above | 40 | + 8 | 0 | − 7 | 3657 | +625 | 244 | −149 |
| | 9. IRELAND, NORTH | 58 | 33 | 51·5 | 44·7 | 48·1 | 6 above | 43 | +24 | 0 | −14 | 2977 | +374 | 326 | −135 |
| | 10. IRELAND, SOUTH | 57 | 27 | 53·1 | 44·4 | 48·8 | 5 above | 48 | +19 | 0 | −10 | 3481 | +505 | 250 | −102 |
| | —CHANNEL ISLANDS | 58 | 39 | 55·1 | 45·7 | 50·4 | 3 above | 59 | +12 | 0 | − 2 | 4404 | +889 | 81 | − 71 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 284.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 6 | 17 | 5 more | 214 | − 9 | 49·1 | + 4·0 | 4 | − 2 | 7 | − 4 | 1196 | +139 | 28 | + 3 |
| | 1. SCOTLAND, EAST | 2 | 1 | 7 less | 183 | 0 | 29·7 | + 0·4 | 7 | − 2 | 14 | − 3 | 1325 | + 79 | 31 | + 1 |
| | 2. ENGLAND, N.E. | 1 | less than ½ | 6 less | 156 | −17 | 21·3 | − 3·1 | 13 | + 8 | 26 | +16 | 1334* | +124 | 32 | + 2 |
| | 3. ENGLAND, EAST | 2 | 2 | 4 less | 142 | −27 | 21·0 | − 3·2 | 20 | +10 | 36 | +17 | 1827 | +279 | 42 | + 6 |
| | 4. MIDLAND COUNTIES | 1 | 2 | 4 less | 139 | −26 | 23·6 | − 2·6 | 15 | + 4 | 27 | + 8 | 1601 | +309 | 39 | + 7 |
| | 5. ENGLAND, SOUTH | 1 | 3 | 4 less | 122 | −38 | 23·2 | − 3·7 | 14 | + 2 | 25 | + 3 | 1946 | +361 | 46 | + 9 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 3 | 10 | 4 less | 202 | +11 | 47·1 | + 0·4 | 6 | − 2 | 12 | − 4 | 1333 | + 19 | 32 | + 1 |
| | 7. ENGLAND, N.W. | 2 | 4 | 4 less | 173 | − 6 | 32·8 | + 0·5 | 11 | + 1 | 20 | + 1 | 1576 | +265 | 38 | + 7 |
| | 8. ENGLAND, S.W. | 2 | 3 | 8 less | 157 | −25 | 34·6 | − 2·3 | 9 | − 3 | 16 | − 5 | 1872 | +267 | 45 | + 7 |
| | 9. IRELAND, NORTH | 3 | 4 | 4 less | 206 | − 2 | 33.3 | − 0·9 | 7 | − 5 | 13 | − 9 | 1386 | +154 | 33 | + 4 |
| | 10. IRELAND, SOUTH | 3 | 5 | 4 less | 169 | −19 | 35·9 | + 0·3 | 12 | − 1 | 21 | − 3 | 1583 | +184 | 38 | + 5 |
| | — CHANNEL ISLANDS | 0 | — | 9 less | 148 | −45 | 24·7 | − 6·0 | 11 | − 3 | 19 | − 5 | 2080 | +304 | 52 | + 8 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was generally fine over our Islands as a whole, but rain was again frequent in the extreme north and north-west, and towards the end of the week unsettled rainy conditions were experienced over the whole Kingdom.

*Temperature* was much above the mean, the excess ranging from 3° in the Channel Islands to 7° in England N.W., 8° in Scotland N. and W., and England N.E., and to as much as 9° in Scotland E. The highest of the maxima were recorded during the earlier days of the period, when they ranged from 59° in the Midland Counties, to 56° in England N.E., E. and S.W. The lowest of the minima, which were registered towards the end of the week, ranged from 27° in Scotland E. and Ireland S., and 28° in England E. and Scotland W., to 33° in England N.E. and N.W. and Ireland N., and to 39° in the Channel Islands.

*Rainfall* exceeded the mean in Scotland N., but was much less in all other districts.

*Bright Sunshine* was less than the mean in most parts of the Kingdom, but exceeded it over the northern, eastern and central parts of England. The percentage of the possible duration ranged from 7 to 14 in Scotland, 13 to 21 in Ireland, and from 16 to 36 over England.

*Barometer and Wind.*—During the whole of this period depressions travelling eastwards to Norway affected the winds and weather on our more northern coasts, while our southern districts were generally under the influence of an anticyclone extending north-westward from the Continent. Towards the end of the week, however, a "V"-shaped depression passed eastwards over England, and the continental high pressure gave way. South-Westerly to Westerly winds, which occasionally blew very strongly in the north and north-west, were mainly prevalent over the United Kingdom, but at the close of the period, when an anticyclone was spreading over as from the Westward, the wind had veered to the Northward or North-Westward.

207 | 90 Wy. & S., Ltd.
913 | 70 12 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 283 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 52 | 35 | 49·6 | 43·4 | 46·5 | + 6·1 | 32 | 0 | 7 | 1·37 | + 0·37 | * | * | * | * |
| | Stornoway | 55 | 38 | 51·4 | 44·6 | 48·0 | + 7·4 | 42 | 0 | 7 | 1·48 | + 0·29 | 2·5 | − 4·4 | 5 | −10 |
| | Wick | 58 | 38 | 52·4 | 43·9 | 48·2 | + 8·4 | 43 | 0 | 6 | 0·23 | − 0·34 | * | * | * | * |
| | Lairg Ⓢ | 54 | 31 | 50.8 | 42·9 | 46.9 | + 8·6 | 34 | 0 | 5 | 0·92 | + 0.12 | * | * | * | * |
| | Glencarron Ⓢ | 52 | 32 | 49·2 | 44·2 | 46·7 | + 8·7 | 33 | 0 | 7 | 4·09 | + 1·83 | * | * | * | * |
| | Fort Augustus Ⓢ | 55 | 35 | 52·5 | 46·3 | 49·4 | + 9·7 | 52 | 0 | 5 | 1·00 | − 0·10 | 1·5 | − 0·7 | 3 | − 2 |
| | Fort William Ⓢ | 54 | 32 | 51·6 | 45·7 | 48·7 | + 7·9 | 47 | 0 | 5 | 3·01 | + 1·00 | 1·3 | − 2·5 | 3 | − 4 |
| 1. SCOTLAND E. | Nairn | 57 | 38 | 52·4 | 44·3 | 48·4 | + 9·6 | 45 | 0 | 3 | 0·07 | − 0·44 | * | * | * | * |
| | Aberdeen | 58 | 35 | 51·9 | 43·3 | 47·6 | + 8·1 | 39 | 0 | 4 | 0·11 | − 0·69 | 7·8 | − 2·4 | 16 | − 4 |
| | Braemar Ⓢ | 52 | 29 | 48·9 | 41·3 | 45·1 | + 9·1 | 25 | 2 | 1 | 0·04 | − 0·70 | 5·2† | − 0·3† | 11† | 0† |
| | Ochtertyre Ⓢ | 55 | 27 | 51·4 | 42·6 | 47·0 | + 8·5 | 35 | 0 | 2 | 0·15 | − 0·85 | * | * | * | * |
| | Leith | 55 | 37 | 51·9 | 45·7 | 48·8 | + 8·2 | 48 | 0 | 2 | 0·05 | − 0·45 | * | * | * | * |
| | Marchmont Ⓢ | 53 | 34 | 50·3 | 42· | 46·4 | + 8·2 | 45 | 0 | 1 | 0·06 | − 0·77 | 10·3 | + 0·1 | 20 | 0 |
| 2. ENGLAND, N.E. | Alnwick Castle | 56 | 39 | 51·7 | 45·7 | 48·7 | + 8·8 | 47 | 0 | 1 | 0·02 | − 0·76 | * | * | * | * |
| | Durham | 56 | 33 | 52·0 | 42·7 | 47·4 | + 7·6 | 38 | 0 | 0 | — | − 0·60 | 17·0 | + 6·8 | 33 | +13 |
| | Shields | 55 | 38 | 52·6 | 45·7 | 49·2 | + 9·1 | 50 | 0 | 1 | 0·01 | − 0·54 | * | * | * | * |
| | Scarborough Ⓜ | | | | | | | | | | | | | | | |
| | Spurn Head | 56 | 41 | 51·7 | 44·0 | 47·9 | + 6·9 | 41 | 0 | 1 | 0·03 | − 0·47 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 52 | 35 | 49·7 | 39·6 | 44·7 | + 4·7 | 29 | 7 | 2 | 0·21 | − 0·41 | 20·8 | +10·5 | 38 | +19 |
| | Yarmouth | 54 | 36 | 50·7 | 40·9 | 45·8 | + 4·9 | 31 | 3 | 2 | 0·14 | − 0·51 | * | * | * | * |
| | Geldeston | 55 | 35 | 52·4 | 40·8 | 46·6 | + 5·6 | 37 | 3 | 2 | 0·11 | − 0·47 | 23·1 | +10·8 | 41 | +18 |
| | Cambridge | 56 | 31 | 53·1 | 38·1 | 45·6 | + 5·6 | 42 | 11 | 1 | 0·16 | − 0·26 | 22·4 | +10·5 | 40 | +18 |
| | Felixstowe | 53 | 36 | 50·4 | 39·5 | 45·0 | + 3·3 | 32 | 7 | 1 | 0·09 | ? | 19·8† | ? | 35† | ? |
| | Rothamsted | 55 | 28 | 51·3 | 36·3 | 43·8 | + 3·8 | 37 | 16 | 1 | 0·17 | − 0·41 | 19·3 | + 9·1 | 34 | +14 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 58 | 37 | 52·7 | 42·1 | 47·4 | + 7·2 | 38 | 0 | 1 | 0·09 | − 0·48 | * | * | * | * |
| | Loughborough | 58 | 36 | 52·9 | 41·6 | 47·3 | + 6·1 | 39 | 1 | 1 | 0·10 | − 0·37 | * | * | * | * |
| | Stamford (Ketton) | 55 | 33 | 52·0 | 38·3 | 45·2 | + 4·7 | 38 | 10 | 2 | 0·05 | − 0·63 | * | * | * | * |
| | Cheadle Ⓜ | 55 | 35 | 49·9 | 41·6 | 45·8 | + 6·3 | 28 | 1 | 1 | 0·18 | − 0·46 | * | * | * | * |
| | Shirley (near Solihull) | 57 | 35 | 51·2 | 39·7 | 45·5 | + 4·8 | 34 | 6 | 2 | 0·28 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 57 | 30 | 52·0 | 41·7 | 46·9 | + 6·9 | 36 | 1 | 1 | 0·15 | − 0·60 | 11·9 | + 2·3 | 22 | + 5 |
| | Hereford (Belmont) Ⓜ | 59 | 33 | 53·4 | 40·8 | 47·1 | + 6·0 | 41 | 3 | 1 | 0·16 | − 0·46 | * | * | * | * |
| | Cirencester | 54 | 30 | 50·7 | 35·0 | 42·9 | + 2·9 | 36 | 20 | 1 | 0·38 | − 0·30 | 15·0 | + 5·0 | 27 | + 9 |
| | Oxford | 56 | 30 | 52·1 | 37·7 | 44·9 | + 3·9 | 38 | 12 | 1 | 0·29 | − 0·29 | 13·3 | + 3·1 | 24 | + 4 |
| 5. ENGLAND, S. | London | 55 | 29 | 51·7 | 37·3 | 44·5 | + 2·8 | 37 | 13 | 1 | 0·25 | − 0·22 | 8·4† | + 2·3† | 15† | + 3† |
| | Cranley Ⓜ | 58 | 31 | 54·7 | 41·5 | 48·1 | + 6·1 | 45 | 1 | 1 | 0·20 | ? | * | * | * | * |
| | Dungeness | 54 | 32 | 53·7 | 38·6 | 46·2 | + 3·2 | 44 | 10 | 1 | 1·01 | + 0·29 | * | * | * | * |
| | Hastings (St. Leonards) | 54 | 36 | 51·9 | 42·5 | 47·2 | + 4·3 | 36 | 0 | 1 | 0·15 | − 0·55 | 15·5 | + 1·6 | 27 | + 4 |
| | Southampton | 57 | 35 | 53·1 | 41·3 | 47·2 | + 4·7 | 39 | 2 | 1 | 0·13 | − 0·57 | 12·2 | + 0·2 | 21 | 0 |
| | Portland Bill | 55 | 40 | 53·7 | 45·4 | 49·6 | + 5·1 | 53 | 0 | 1 | 0·06 | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 52 | 33 | 49·5 | 41·3 | 45·4 | + 5·6 | 27 | 2 | 2 | 0·19 | − 0·59 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 57 | 32 | 52·6 | 46·2 | 49·4 | + 7·9 | 52 | 0 | 7 | 2·26 | + 0·14 | * | * | * | * |
| | Glasgow | 53 | 34 | 50·9 | 45·7 | 48·3 | + 9·6 | 44 | 0 | 2 | 0·28 | − 0·62 | 4·9 | + 0·9 | 10 | + 1 |
| | Glenlee Ⓢ | 54 | 28 | 50·9 | 43·8 | 47·4 | + 8·4 | 38 | 0 | 3 | 0·80 | − 0·70 | * | * | * | * |
| | Douglas (Isle of Man) | 54 | 32 | 52·1 | 45·9 | 49·0 | + 6·0 | 49 | 0 | 1 | 0·64 | − 0·38 | 7·2 | − 5·0 | 13 | −10 |
| 7. ENGLAND, N.W. | Newton Reigny | 54 | 33 | 50·9 | 43·7 | 47·3 | + 9·8 | 37 | 0 | 2 | 0·41 | ? | 6·4 | ? | 12 | ? |
| | Stonyhurst | 52 | 33 | 50·7 | 43·3 | 47·0 | + 6·2 | 35 | 0 | 4 | 1·20 | + 0·20 | 7·4 | − 0·9 | 14 | − 1 |
| | Blackpool Ⓜ | 53 | 39 | 51·6 | 46·2 | 48·9 | + 7·6 | 48 | 0 | 3 | 0·18 | − 0·56 | 6·6 | 0·6 | 12 | − 3 |
| | Manchester (Prestwich) | 57 | 34 | 52·5 | 43·5 | 48·0 | + 7·5 | 42 | 0 | 4 | 0·34 | − 0·46 | 9·3 | ? | 17 | ? |
| | Liverpool Obsy. (Bidston) | 56 | 41 | 52·9 | 46·0 | 49·5 | + 8·2 | 53 | 0 | 1 | 0·21 | − 0·44 | 17·1 | ? | 31 | ? |
| | Llandudno Ⓜ | 55 | 41 | 53·0 | 47·0 | 50·0 | + 6·0 | 56 | 0 | 2 | 0·46 | − 0·26 | 13·9 | + 5·0 | 25 | + 8 |
| | Holyhead | 54 | 44 | 52·3 | 47·3 | 49·8 | + 4·6 | 55 | 0 | 2 | 0·30 | − 0·55 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 55 | 31 | 52·3 | 42·3 | 47·3 | + 6·3 | 37 | 0 | 4 | 0·37 | − 0·80 | * | * | * | * |
| | Pembroke | 55 | 43 | 53·6 | 49·6 | 51·6 | + 6·0 | 67 | 0 | 2 | 0·40 | − 0·54 | 3·7 | − 7·7 | 7 | −14 |
| | Clifton | 55 | 36 | 51·9 | 43·3 | 47·6 | + 6·4 | 39 | 0 | 0 | — | − 0·77 | * | * | * | * |
| | Arlington (N. Devon) | 53 | 36 | 50·4 | 40·9 | 45·7 | + 3·9 | 31 | 3 | 3 | 0·80 | − 0·58 | * | * | * | * |
| | Cullompton Ⓜ | 55 | 30 | 52·3 | 37·9 | 45·1 | + 2·6 | 39 | 11 | 2 | 0·13 | − 0·67 | 10·1 | + 0·6 | 18 | + 1 |
| | Falmouth | 56 | 42 | 52·6 | 45·4 | 49·0 | + 2·4 | 49 | 0 | 1 | 0·03 | − 1·18 | 9·6 | − 4·1 | 17 | − 6 |
| | Plymouth | 55 | 36 | 52·5 | 42·3 | 47·4 | + 2·4 | 38 | 0 | 1 | 0·06 | − 0·86 | 8·3 | − 3·4 | 14 | − 7 |
| 9. IRELAND, N. | Malin Head | 54 | 43 | 51·1 | 47·1 | 49·1 | + 6·1 | 50 | 0 | 3 | 0·15 | ? | * | * | * | * |
| | Londonderry | 55 | 41 | 51·6 | 44·4 | 48·0 | + 6·2 | 42 | 0 | 4 | 0·38 | − 0·57 | * | * | * | * |
| | Edenfel (Omagh) | 53 | 36 | 49·4 | 43·6 | 46·5 | + 6·7 | 32 | 0 | 2 | 0·17 | − 0·63 | * | * | * | * |
| | Blacksod | 55 | 40 | 52·1 | 46·9 | 49·5 | + 5·7 | 53 | 0 | 4 | 0·92 | ? | * | * | * | * |
| | Markree Castle | 58 | 37 | 52·8 | 43·5 | 48·2 | + 7·2 | 43 | 0 | 3 | 0·56 | − 0·34 | 7·0 | − 4·0 | 13 | − 7 |
| | Armagh | 54 | 33 | 52·2 | 43·0 | 47·6 | + 6·9 | 39 | 0 | 2 | 0·17 | − 0·43 | 6·3 | − 5·9 | 12 | −10 |
| | Donaghadee | 54 | 39 | 51·0 | 44·3 | 47·7 | + 4·7 | 40 | 0 | 3 | 0·17 | − 0·43 | * | * | * | * |
| 10. IRELAND, S. | Dublin | 57 | 36 | 53·5 | 44·5 | 49·0 | + 5·8 | 49 | 0 | 3 | 0·20 | − 0·37 | 14.4 | + 0·1 | 26 | 0 |
| | Parsonstown | 55 | 30 | 51·4 | 41·6 | 46·5 | + 5·5 | 33 | 1 | 3 | 0·38 | − 0·39 | 14·9 | + 1·6 | 27 | + 4 |
| | Kilkenny | 54 | 27 | 51·1 | 39·1 | 45·1 | + 2·1 | 34 | 8 | 3 | 0·28 | − 0·33 | * | * | * | * |
| | Roche's Point | 55 | 38 | 53·3 | 47·7 | 50·5 | + 5·4 | 60 | 0 | 2 | 0·47 | − 0·69 | * | * | * | * |
| | Valencia | 57 | 38 | 54·9 | 48·6 | 51·8 | + 5·5 | 69 | 0 | 3 | 0·69 | − 0·55 | 5·3 | − 6·5 | 9 | −13 |
| | Killarney | 57 | 31 | 54·4 | 45·1 | 49·8 | + 5·9 | 55 | 0 | 3 | 0·77 | ? | * | * | * | * |
| | Foynes | 57 | 33 | 53·3 | 44·2 | 48·8 | + 5·0 | 48 | 0 | 2 | 0·50 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 58 | 45 | 56·6 | 46·7 | 51·7 | + 3·7 | 68 | 0 | 0 | — | − 0·95 | 13·9 | ? | 24 | ? |
| | Jersey | 55 | 39 | 53·6 | 44·6 | 49·1 | + 2·8 | 50 | 0 | 0 | — | − 0·88 | 10·8 | − 2·4 | 18 | − 7 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

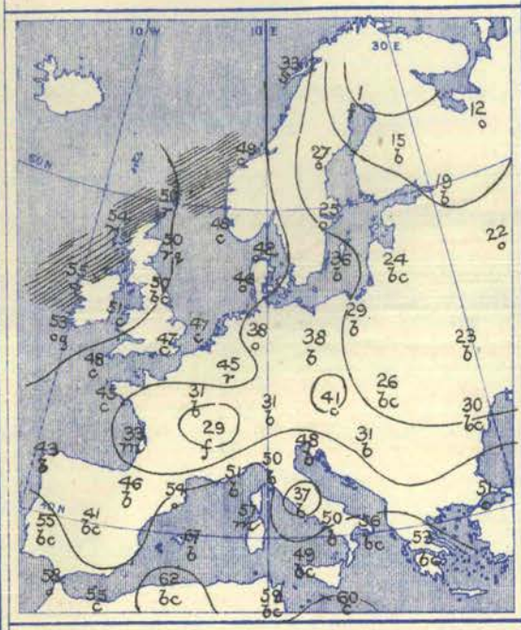
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 26th November.

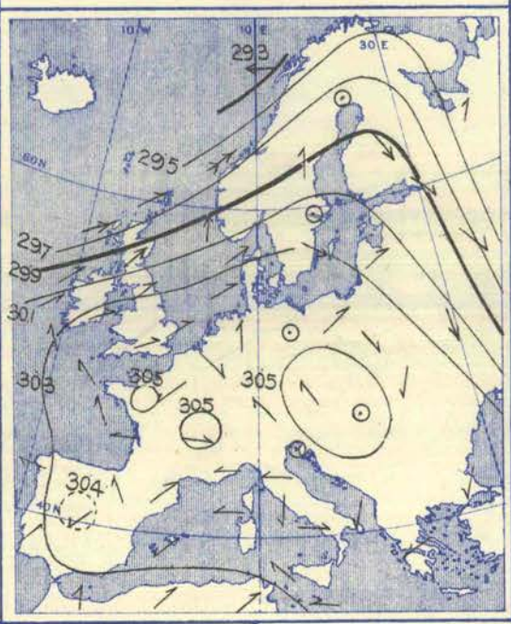
### Temperature and Weather.

#### 8 a.m.

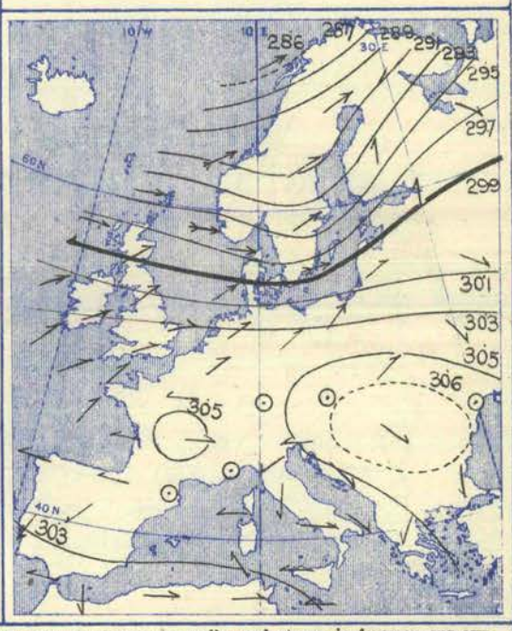


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning fine in the east and south of our Islands and also over southern and eastern Europe generally. Cloudy or dull elsewhere, with rain in the north of Scotland and also at Brussels and Wiesbaden; snow falling at Bodö and Warsaw. A little rain falling later over the northern parts of our Islands generally, and larger quantities at some of the Scandinavian stations; snow reported over the northern parts of Sweden and Russia.

*Temperature* risen in the northern parts of our Islands and the Continent; fallen in the more central regions; changed irregularly in the south. Morning readings highest, 62° at Algiers, 60° at Malta, and 59° at Sfax; above 55° at several of the Mediterranean stations; above 50° in the west and north of our Islands, and touching 55° at Blacksod Point. Lowest, 1° at Uleaborg, 12° at Archangel, 14° at Haparanda, and 15° at Kuopio; below the freezing point over Sweden and Russia generally, and also over central France. Rising during day to 55° or slightly above it at many of our own western and northern stations, and also in the west and south of France; exceeding 60° over Spain and southern Italy, and reaching 66° at Cagliari.

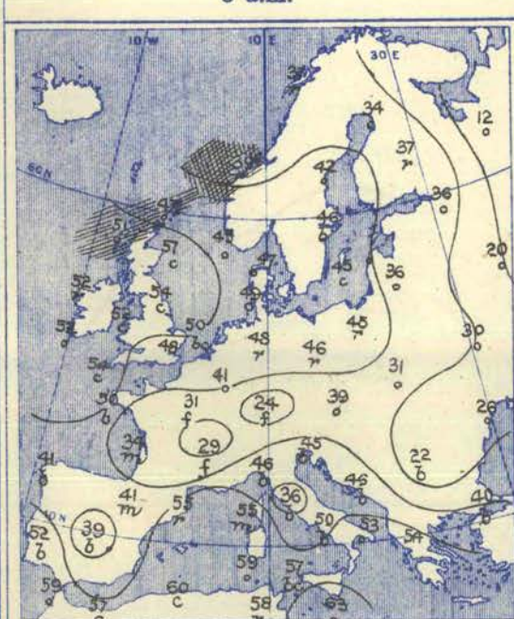
*Wind* South-Westerly over north-western Europe generally, and strong in force on our own northern coasts, as well as in the west of Norway, with a gale at Christiansund; moderate to fresh from the North-Westward over Russia. Light from the Eastward (South-East to North-East) over France and the Spanish Peninsula; calm in Austria; variable over Germany and Italy. Subsequently blowing a moderate to fresh gale from the Westward in Scotland, and a fresh to strong gale from the South-Westward over nearly the whole of Scandinavia and the Baltic.

*Barometer* highest, 30·5 ins. and upwards over Austria and eastern Germany, and also at some stations in central France; 30·2 ins. and upwards in an anticyclone covering the whole of central and southern Europe and extending over the greater part of England and Ireland. Lowest, 29·4 ins. and less in a depression off northern part of the Norwegian coasts; 29·5 ins. and less in another disturbance over northern Russia. Norwegian depression subsequently becoming deeper and spreading south-eastwards; Russian disturbance travelling away to the eastward.

## Monday, 27th November.

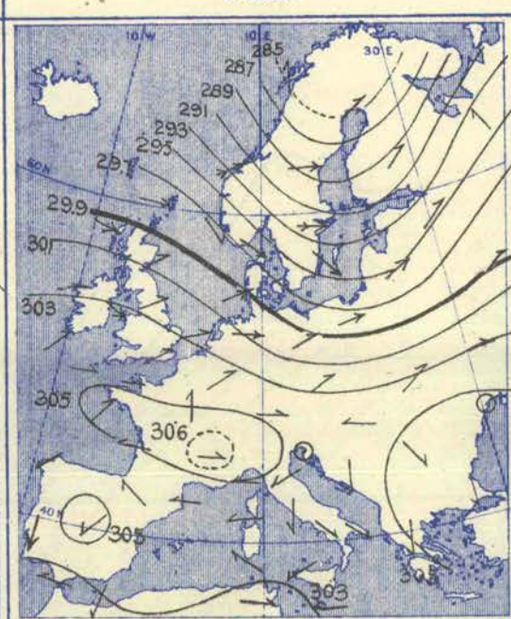
### Temperature and Weather.

#### 8 a.m.

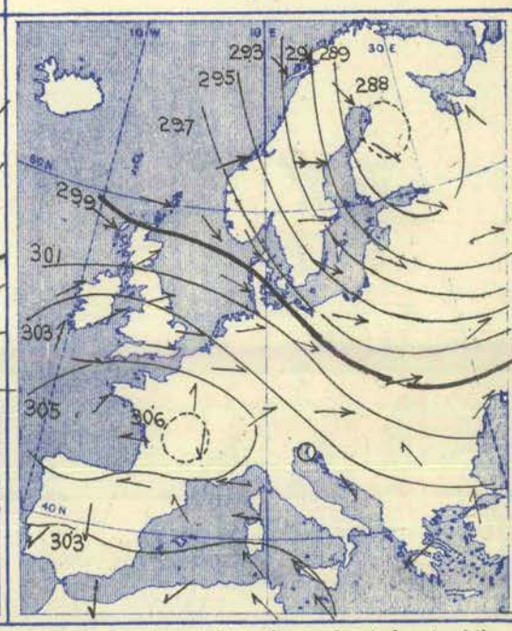


### Barometer and Wind.

#### 8 a.m.



#### 6 p.m.



*Weather* in morning cloudy or dull in our Islands, and all the more northern and central parts of the Continent, with rain in the north-west of Ireland, as well as in north Germany, Finland, and the west of Norway. Foggy over central France, fine over southern Europe generally, but dull at several of the Mediterranean stations, with rain at Barcelona and La Calle. Rain falling later in the northern part of Scotland and Scandinavia, and snow over northern and central Russia.

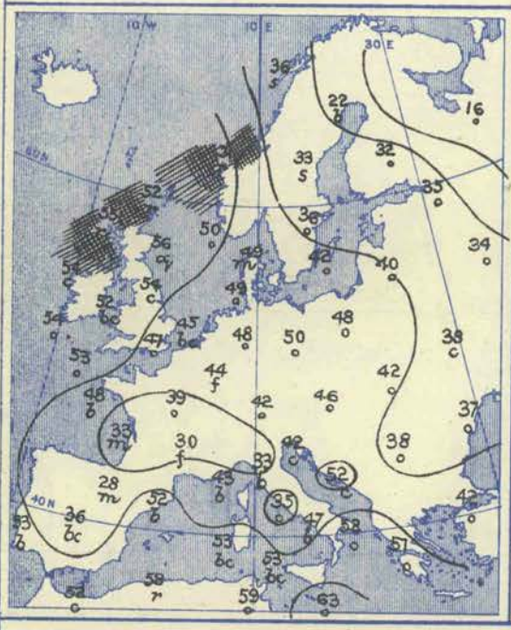
*Temperature* risen over all the more northern parts of Europe—rapidly in Sweden and Finland. fallen in most of the southern countries. Morning readings highest, 63° at Malta, 60° at Algiers, and 59° at San Fernando and Cagliari, above 50° in most parts of the United Kingdom. Lowest, (1) 12° at Archangel, 20° at Moscow, and 22° at Kharkov; (2) 21° at Belfort and Limoges, and 28° at Le Mans. Rising during day to 55° or a little above it in most parts of the United Kingdom, as well as in the south of France, but remaining below 40° over central France. Reaching 66° at Cagliari, Palermo and Malta, and 70° at Cape Béarn.

*Wind* Westerly or South-Westerly over our Islands, and the northern and central parts of the Continent generally, but inclining to North-West in Denmark and the south of Norway; light or moderate in force over the United Kingdom, but strong over Scandinavia and the Baltic, with a gale at Christiansund and Stockholm. Light from the Eastward in the west and south of France, and from the North-Eastward over the Spanish Peninsula; Northerly over Italy and Greece. Subsequently moderating in force in Scandinavia, but blowing hard from the North-Westward over the Gulf of Finland.

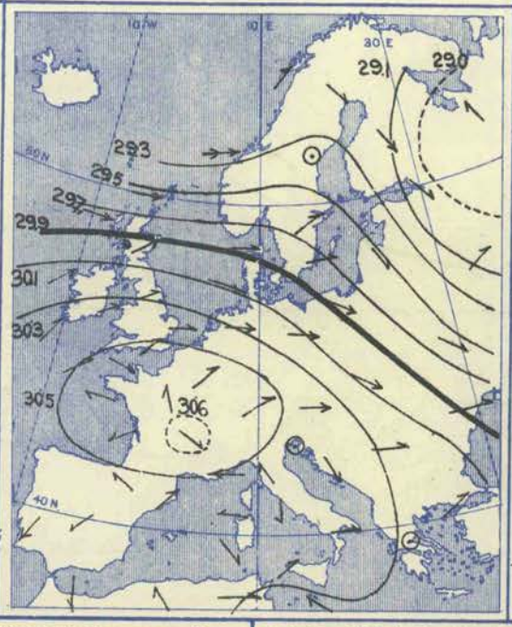
*Barometer* highest, 30·6 ins. and upwards over central France, 30·2 ins. and upwards in an anticyclone covering the whole of central and southern Europe, and extending over the greater part of England and Ireland. Lowest, 28·5 ins. and less in a deep depression moving eastwards across the north of Scandinavia; gradients steep over northern Europe generally. Barometer rising later in the north, no important change occurring elsewhere.

## Tuesday, 28th November.

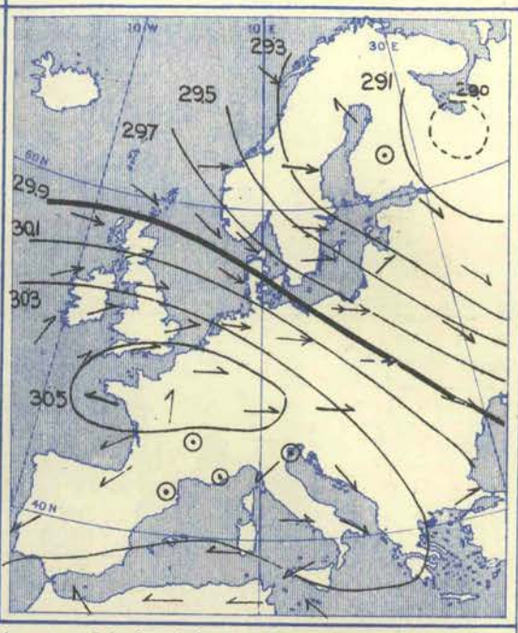
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine at many of the English and Irish stations, and also over southern Europe generally. Cloudy or dull elsewhere, with fog over Belgium and Central France, and rain in the Shetlands and Hebrides, as well as at Christiansund and Cracow, snow falling at Bodö and Hernösand. A little rain falling later in the north of Scotland generally; no important change occurring in other parts of western Europe, but heavy rain falling in Algeria, with a thunderstorm at Sfax.

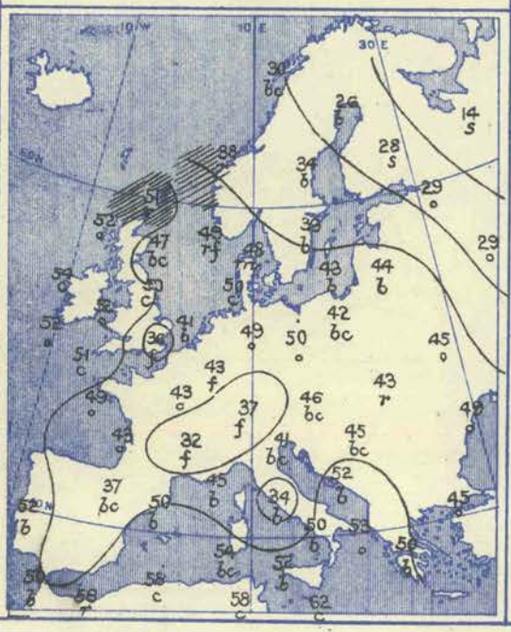
*Temperature* fallen over England and most parts of southern Europe, but risen elsewhere. Morning readings highest, (1) 63° at Malta, 59° at Sfax and 58° at Algiers; (2) 56° at Aberdeen and 55° at Stornoway and Wick; above 50° in the west and north of our Islands generally. Lowest, (1) 16° at Archangel, 22° at Haparanda, and 26° at Uleaborg; (2) 22° at Belfort and Limoges, and 28° at Biarritz. Rising during day to 55° or slightly above it in many parts of the United Kingdom, and also in the south of France, to 59° at Perpignan, and to 64° at Lisbon; not exceeding 32° at Lyons all day. Exceeding 60° at several of the Mediterranean stations and reaching 70° at Cagliari and Palermo.

*Wind* South-Westerly or Westerly over our Islands and also over Norway, Denmark, Germany, and the south of Sweden; very strong in force on our own northern coasts, and blowing a gale at Christiansund; strong from the North-Westward in Finland, and moderate to fresh from the same quarter, or from West over Austria and the central and southern parts of Russia. Easterly in the west and south of France, and North-Easterly over the Spanish Peninsula; rather variable in Italy, but chiefly North-Westerly. Wind moderating later on our northern coasts; no important change occurring elsewhere.

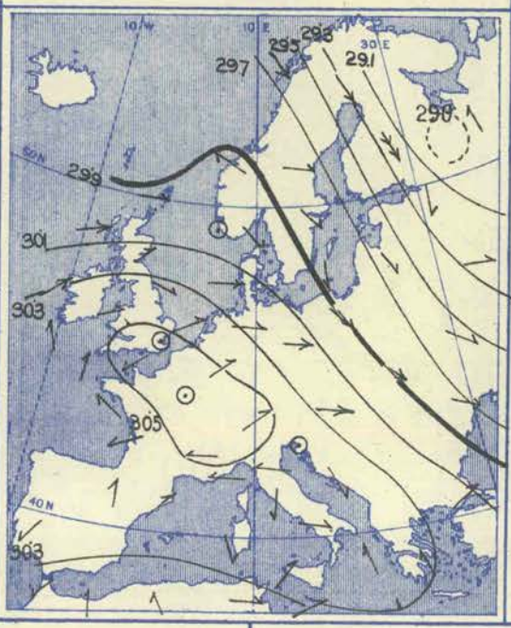
*Barometer* highest, 30·5 ins. to 30·6 ins. or slightly more over France and the southern parts of England and Germany; 30·1 ins. and upwards in an anticyclone covering the whole of central and southern Europe, and extending also over England and Ireland. Lowest, 29·0 ins. and less in a large depression over northern Russia; 29·2 ins. and less in another disturbance off the northern parts of the Norwegian coasts. Both depressions moving eastwards later, and barometer rising briskly in the extreme north.

## Wednesday, 29th November.

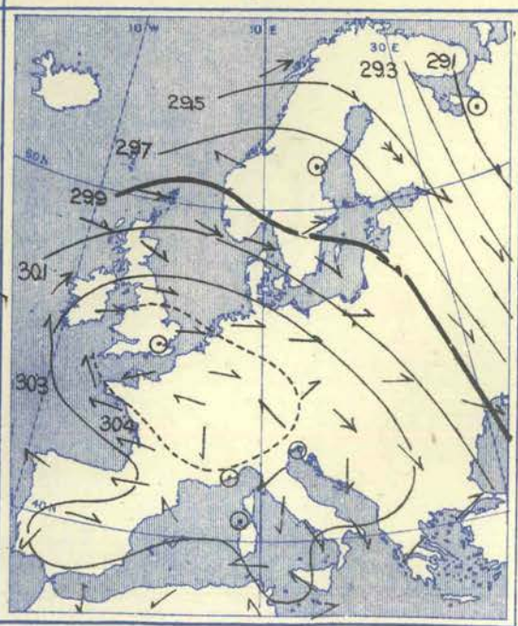
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine on the south and east coasts of Great Britain, as well as in Holland, Sweden, and the greater part of southern Europe. Cloudy or dull elsewhere, with fog in the south-east of England, as well as in Belgium, south Germany, and central France; rain falling in the Shetlands and west of Norway, as well as at Cracow and Lemberg; snow falling at Archangel and Kuopio. No important change occurring over western Europe during day.

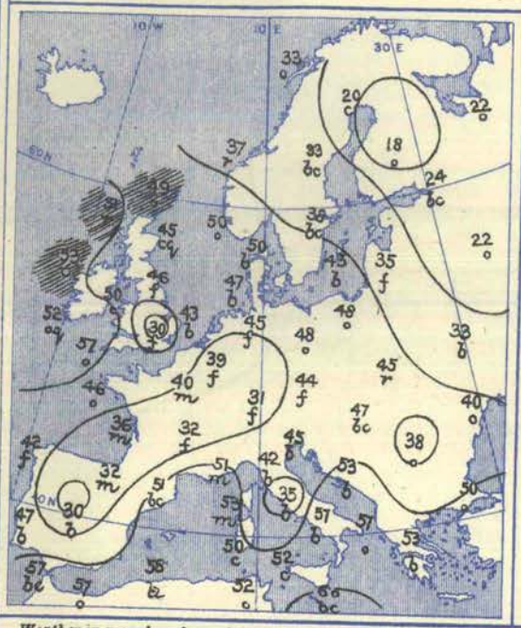
*Temperature* fallen in most countries, but risen quickly over France. Morning readings highest 62° at Malta, 61° at Sfax, and 58° at Nemours, Algiers and La Calle; above 50° in the west and extreme north of our Islands. Lowest, 14° at Archangel, 26° at Uleaborg, and 28° at Kuopio, below the freezing point over northern and central Russia generally, and very little above it in the south-east of England. Rising during day to between 50° and 55° in many parts of the United Kingdom, and also on the French coasts, but not exceeding 35 at Lyons. Frost occurring in the south of England at night.

*Wind* light to moderate from the Southward or South-Westward on our western coasts, and from the Westward in the north and east of Great Britain, as well as in Denmark and Germany. North-westerly in Sweden, Russia, and Austria, and strong to a gale in force in Finland. Easterly over France, and North-Easterly over Spain, but variable in Italy. No important change occurring later.

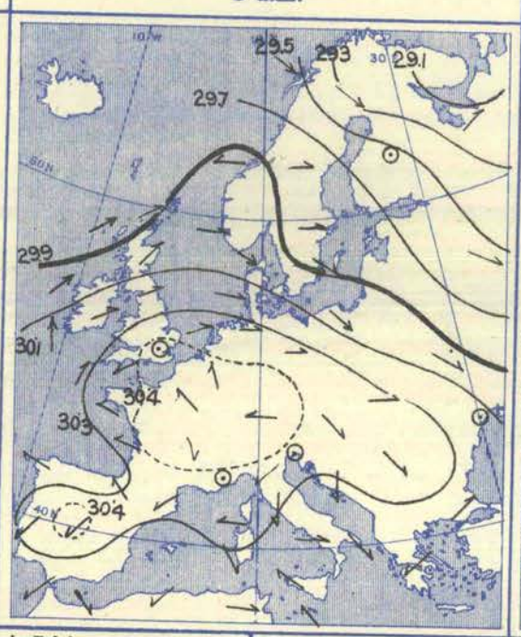
*Barometer* highest, 30·5 ins. and upwards over the south-east of England, Belgium, south Germany, and northern and central France, 30·1 ins. and upwards in an anticyclone lying over the whole of western or southern Europe. Lowest, 29·0 ins. and less in a depression over northern Russia, 29·9 ins. and less in a shallow area lying to the northward of our Islands. New depression advancing later to the Norwegian coasts, no important change occurring over these Islands and France. Depression over northern Russia moving slowly eastwards.

## Thursday, 30th November.

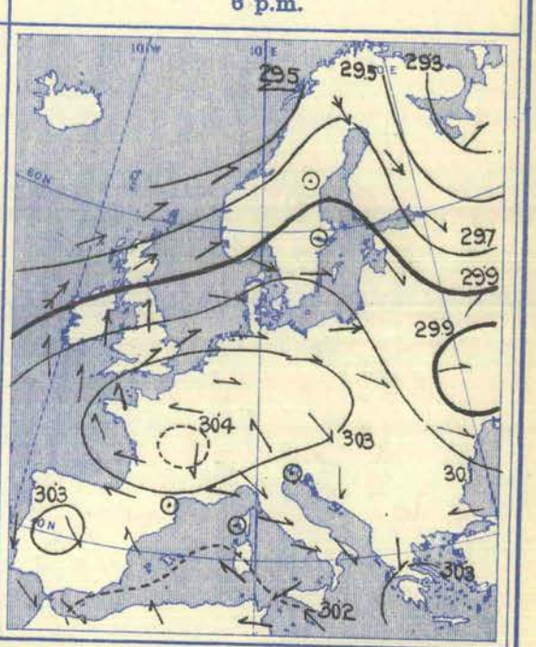
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning foggy in many parts of England, as well as in Belgium, south Germany, and central France. Fine in the east of Scotland and the northern and central parts of Ireland, as well as in Sweden and the greater part of southern Europe. Dull in the south of Ireland and the north of Scotland, and also over the western, central, and eastern parts of the Continent generally, with rain at Stornoway, Christiansund, and Uleaborg, and snow at Hangö. Thunderstorm reported at Algiers. Rain falling later at most of our own western and northern stations, as well as in many parts of Scandinavia.

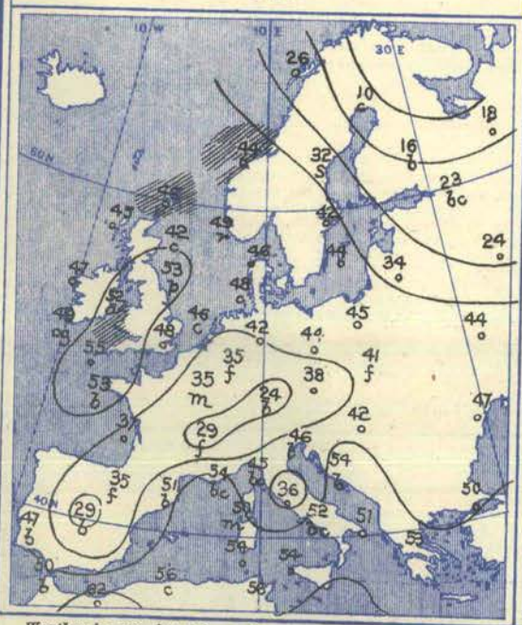
*Temperature* falling in most places. Morning readings highest, 60° at Malta, 59° at Palma, and 58° at Algiers; above 50° at the Mediterranean and Adriatic stations generally, as well as on our own extreme west and south-west coasts. Lowest, 18° at Kuopio, 20° at Haparanda, and 22° at Archangel and Moscow; below the freezing point over Russia generally, as well as at some stations in central France and the south-east of England. Rising during day to 50° and upwards in most parts of the United Kingdom; exceeding 55° in the extreme south of France, and exceeding 60° at several of the Mediterranean stations.

*Wind* Southerly or South-Westerly over the greater part of our Islands, and strong in force on our extreme north-west coasts, with a gale at Blacksod Point. Calm or variable in the south-east of England, light from the Eastward in France, and light from the North-Eastward or Northward over the Spanish Peninsula. Westerly or North-Westerly over nearly the whole of northern, central, and eastern Europe, and strong in force at some of the Scandinavian and Danish stations; variable in Italy. Subsequently increasing to a gale from the South-Westward on many parts of our north and north-west coasts.

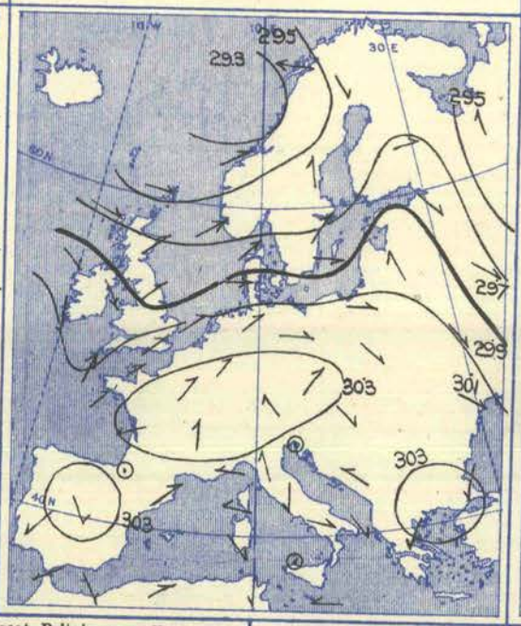
*Barometer* highest, 30·4 ins. and upwards over the south-east of England, the greater part of France, and west and south of Germany; 30·1 ins. and upwards in an anticyclone covering the whole of central and southern Europe, and extending westwards over England and the greater part of Ireland. Lowest, 29·2 ins. and less in a depression over the extreme north of Russia, 29·3 ins. and less in another disturbance approaching our own extreme north-west coasts. Latter disturbance subsequently moving north-eastwards.

## Friday, 1st December.

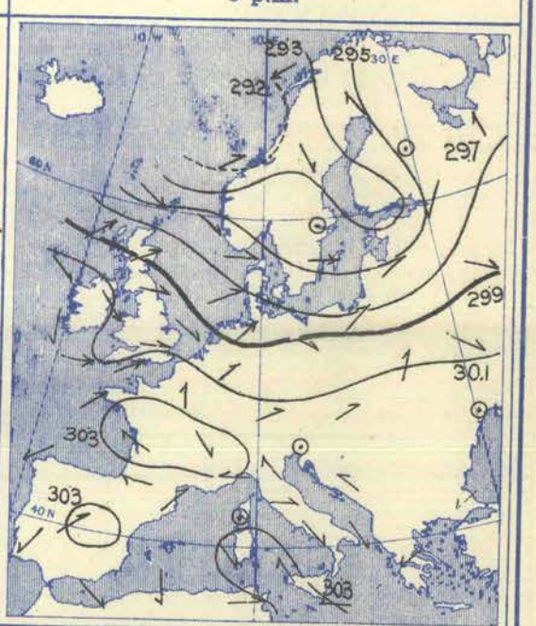
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair or fine over the eastern parts of Great Britain as well as over southern Europe generally. Cloudy or dull elsewhere, with fog or mist over Belgium and central France, and rain at several of our own western stations and also at Christiansund; snow falling at Hernösand. Rain falling later over north-western Europe generally, but amounts mostly slight. Snow reported in many parts of northern and central Russia.

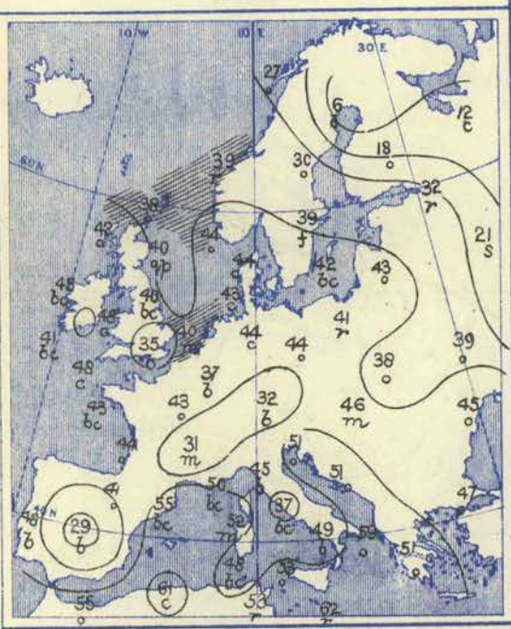
*Temperature* risen briskly over England and, to a less extent, over the south of Sweden, northern Italy, and the south of France. Morning readings, highest (1), 62° at Oran, 61° at Malta, and 57° at Sfax; (2), 55° at Pembroke and Scilly, above 50° over the western and southern parts of Great Britain generally. Lowest (1), 10° at Haparanda, 14° at Uleaborg, 16° at Kuopio, and 18° at Archangel; (2), 23° at Limoges, 24° at Munich, and 28° at Belfort. Daily maxima below 50° over the northern parts of our Islands, but thermometer reaching 55° on several parts of our southern coasts, and touching 57° at Scilly. Exceeding 55° also at some stations in the west and south of France, and exceeding 60° over Spain and southern Italy.

*Wind* light to moderate from the Westward or North-Westward over Ireland and the west and north of Scotland, South-Westerly over England, the Netherlands, Denmark, Germany, and the south of Scandinavia; variable over the northern parts of Russia and Scandinavia. Light from the Eastward in the west of France, variable over southern Europe generally, but Northerly or North-Easterly in Spain. Subsequently veering to the Westward or North-Westward over England; blowing strongly from the same quarters in the north of Scotland.

*Barometer*, highest, 30·4 ins. and upwards over central Spain; 30·2 ins. and upwards in an anticyclone covering the whole of central and southern Europe. Lowest, 29·3 ins. and less in a large depression lying off the west of Norway, 29·5 ins. and less in another disturbance over northern Russia. Norwegian depression subsequently moving south-eastwards; "V-shaped" secondary systems passing eastwards across our Islands.

## Saturday, 2nd December.

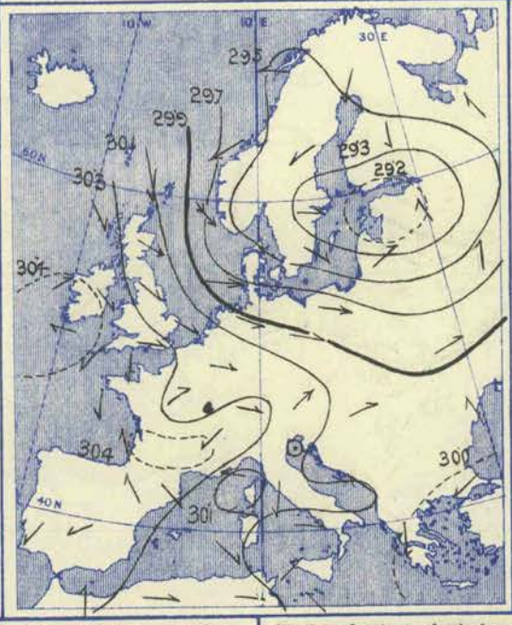
### Temperature and Weather. 8 a.m.



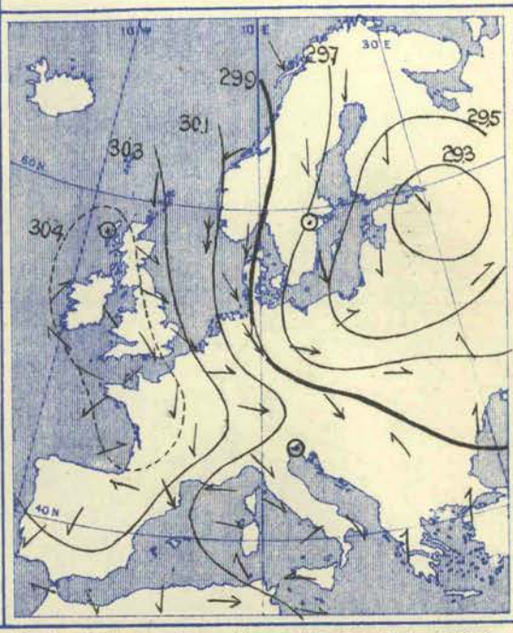
*Weather* in morning fine over the United Kingdom as a whole, but showery in the north of Scotland, with sleet and hail at Wick. Fine also over the Netherlands and the greater part of southern Europe, but cloudy or dull in other parts of the Continent, with rain at Christiansund, St. Petersburg, and Neufahrwasser, and snow at Moscow. A little rain falling later in Germany, and snow at several of the Scandinavian stations, as well as at Archangel.

*Temperature* fallen in most countries. Morning readings, highest, 62° at Malta, 61° at Algiers, and 59° at Brindisi; above 50° at most of the Mediterranean and Adriatic stations. Lowest, 6° at Haparanda, 12° at Uleaborg and Archangel, and 18° at Kuopio; below the freezing point over the northern parts of Russia and Scandinavia generally, and also over south Germany, the east of France, and the central parts of Ireland and Spain. Daily maxima below 45° in Scotland, and below 50° on all but our extreme south and south-west coasts; thermometer exceeding 55° in the west and south of France, and exceeding 65° in several parts of Spain and southern Italy. Sharp frost occurring over the central parts of the United Kingdom at night.

### Barometer and Wind. 8 a.m.



### 6 p.m.



*Wind* moderate to fresh from the North-Westward over the greater part of the United Kingdom, and strong to a gale from the same quarter or from West on the eastern shores of the North Sea. Light from the Westward over the central and southern parts of England; moderate to fresh from the same quarter or from South-West over central Europe generally; variable over southern Europe generally. Subsequently shifting to the South-Eastward in Ireland, veering to the Northward over Denmark and the south of Scandinavia, and still blowing with the force of a gale.

*Barometer*, highest 30·4 ins. and upwards, and also over the central parts of France and Spain; 30·2 ins. and upwards in an anticyclone covering the whole of our Islands, France, and Spain; 30·1 ins. and upwards in another system over Turkey and Asia Minor. Lowest, 29·2 ins. and less in a well-marked depression, with its centre over the Gulf of Finland; gradients steep over the eastern parts of the North Sea. Anticyclone and northern depression both moving eastwards later; barometer rising over western Europe generally, but beginning to fall again in Ireland.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: ⟹ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; n = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

## GENERAL NOTES.

During the greater part of the week a large anticyclone covered the whole of central and southern Europe, its north-western borders extending over a considerable portion of the United Kingdom. In the regions exposed to its influence the weather was mostly fair and dry, though cloudy and foggy in many places, the thermometer being high for the time of year in these Islands (where the wind was chiefly from the South-Westward or Westward), but low in France and some parts of Germany. Over northern Europe the conditions were affected by large depressions which continued to advance over Scandinavia from the westward, the wind being often strong to a gale from the Westward (South-West to North-West) with frequent falls of rain or snow. The influence of these disturbances was felt also in the north of Scotland, where rain fell almost every day, and the Westerly wind occasionally blew with considerable force.

Towards the close of the week the anticyclone began to disperse, and on the 1st December some "V"-shaped secondary depressions advanced eastwards over our Islands and the North Sea, these disturbances producing rain in most parts of north-western Europe. As they passed away to the eastward a new anticyclone spread over the United Kingdom from the Atlantic, and the wind consequently veered to the North-Westward or Northward with colder weather in most districts—a very sharp frost being experienced over central England on the night of December 2nd. By this time the barometer was beginning to fall again in the extreme west, with freshening Southerly winds and rain.

## BRIGHT SUNSHINE Values for the Week, in addition to those found on page 284.

| STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 4·1 | ? | 9 | ? | BRIGHTON | 10·3 | − 1·4 | 18 | − 4 |
| STRATHPEFFER SPA | 8·0 | + 0·4 | 17 | + 1 | WORTHING | 14·2 | ? | 25 | ? |
| EDINBURGH | 3·6 | − 5·2 | 7 | −10 | BOGNOR | 18·1* | ? | 32* | ? |
| MORPETH | 13·3 | ? | 26 | ? | EASTBOURNE | 16·5 | + 4·4 | 29 | + 7 |
| NEWCASTLE-ON-TYNE | 10·0 | ? | 19 | ? | VENTNOR HOSPITAL | 15·4 | ? | 27 | ? |
| OSWALDKIRK (Yorkshire) | | | | | SOUTHPORT | 12·6 | ? | 23 | ? |
| LOWESTOFT | 19·5 | ? | 35 | ? | COLWYN BAY | 18·2 | ? | 33 | ? |
| HOLLESLEY BAY | 18·0 | ? | 32 | ? | RHYL | * | ? | * | ? |
| SHEFFIELD | 16·8 | ? | 31 | ? | ABERDOVEY | 7·0* | ? | 13* | ? |
| WORKSOP | 14·2 | + 5·2 | 26 | +10 | TENBY | 4·2 | − 7·0 | 8 | −12 |
| THURCASTON (Leicestershire) | 16·0 | + 6·3 | 29 | +12 | NEWQUAY | 9·5 | − 4·5 | 16 | − 9 |
| MARGATE | 13·2 | + 0·7 | 23 | + 2 | TORQUAY | 17·7 | + 5·3 | 31 | + 9 |
| WESTBOURNE (Emsworth) | 14·5* | + 3·5 | 25* | + 5 | GUERNSEY | 9·0* | − 5·2 | 15* | −10 |
| WATERGATE (Emsworth) | 17·2 | ? | 30 | ? | | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

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# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 49.] *Third Series.* WEEK ENDING SATURDAY, DECEMBER 9TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL —The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE —The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 290.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 54 | 26 | 46·6 | 36·2 | 41·6 | 3 above | 13 | + 3 | 25 | + 3 | 2367 | +414 | 375 | - 76 |
| | 1. SCOTLAND, EAST | 55 | 22 | 45·6 | 34·4 | 40·2 | 2 above | 10 | - 1 | 31 | + 3 | 2586 | +244 | 761 | - 46 |
| | 2. ENGLAND, N.E. | 56 | 25 | 46·5 | 37·3 | 42·1 | 3 above | 20 | + 6 | 13 | - 9 | 2918 | +367 | 489 | -157 |
| | 3. ENGLAND, EAST | 54 | 25 | 45·8 | 36·8 | 41·5 | 2 above | 11 | - 4 | 22 | - 3 | 3368 | +420 | 494 | -237 |
| | 4. MIDLAND COUNTIES | 56 | 22 | 45·6 | 33·9 | 40·0 | 1 above | 10 | - 7 | 33 | + 7 | 3334 | +414 | 585 | -168 |
| | 5. ENGLAND, SOUTH | 56 | 26 | 47·1 | 37·8 | 42·7 | 2 above | 23 | 0 | 12 | - 2 | 3805 | +572 | 320 | -223 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 55 | 25 | 48·7 | 39·1 | 44·1 | 4 above | 27 | +11 | 8 | -10 | 2775 | +287 | 433 | -127 |
| | 7. ENGLAND, N.W. | 57 | 24 | 47·1 | 38·3 | 42·9 | 2 above | 22 | + 4 | 10 | - 6 | 3169 | +440 | 333 | -197 |
| | 8. ENGLAND, S.W. | 57 | 25 | 49·0 | 39·4 | 44·4 | 2 above | 28 | 0 | 7 | - 3 | 3685 | +625 | 251 | -152 |
| | 9. IRELAND, NORTH | 59 | 26 | 49·3 | 40·9 | 45·3 | 4 above | 28 | +12 | 3 | -14 | 3005 | +386 | 329 | -149 |
| | 10. IRELAND, SOUTH | 61 | 28 | 51·4 | 41·9 | 46·8 | 4 above | 34 | + 8 | 0 | -12 | 3515 | +513 | 250 | -114 |
| | —CHANNEL ISLANDS | 58 | 35 | 52·1 | 45·2 | 48·8 | 3 above | 48 | + 6 | 0 | - 3 | 4452 | +895 | 81 | - 74 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 290.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 5 | 15 | 2 more | 219 | -10 | 50·6 | + 4·2 | 1 | - 3 | 3 | - 7 | 1197 | +137 | 28 | + 4 |
| | 1. SCOTLAND, EAST | 5 | 15 | 8 more | 188 | + 1 | 31·2 | + 1·1 | 1 | - 7 | 3 | -12 | 1326 | + 72 | 31 | + 2 |
| | 2. ENGLAND, N.E. | 5 | 13 | 7 more | 161 | -16 | 22·6 | - 2·4 | 3 | - 6 | 5 | -11 | 1336* | +113 | 32 | + 3 |
| | 3. ENGLAND, EAST | 4 | 6 | 1 more | 146 | -27 | 21·6 | - 3·1 | 13 | 0 | 24 | 0 | 1840 | +280 | 42 | + 7 |
| | 4. MIDLAND COUNTIES | 4 | 5 | 1 less | 143 | -26 | 24·1 | - 2·6 | 6 | - 2 | 12 | - 4 | 1607 | +307 | 39 | + 7 |
| | 5. ENGLAND, SOUTH | 4 | 3 | 4 less | 126 | -39 | 23·5 | - 4·1 | 9 | - 1 | 17 | - 2 | 1955 | +360 | 45 | + 8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 6 | 19 | 5 more | 208 | +12 | 48·9* | + 0·8 | 3 | - 4 | 6 | - 9 | 1336 | + 15 | 31 | 0 |
| | 7. ENGLAND, N.W. | 5 | 11 | 4 more | 178 | - 6 | 33·9 | + 0·8 | 5 | - 4 | 9 | - 8 | 1582* | +261 | 37 | + 6 |
| | 8. ENGLAND, S.W. | 4 | 5 | 5 less | 161 | -26 | 35·1 | - 2·9 | 7 | - 4 | 13 | - 7 | 1879 | +263 | 44 | + 6 |
| | 9. IRELAND, NORTH | 7 | 13 | 5 more | 213 | 0 | 34.6 | - 0·4 | 1 | - 9 | 3 | -17 | 1387 | +145 | 33 | + 4 |
| | 10. IRELAND, SOUTH | 6 | 10 | 2 more | 175 | -18 | 36·9 | + 0·4 | 4 | - 8 | 8 | -15 | 1587 | +176 | 37 | + 4 |
| | — CHANNEL ISLANDS | 5 | 9 | 0 (average) | 153 | -46 | 25·6 | - 6·0 | 13 | + 2 | 23 | + 2 | 2093 | +306 | 51 | + 7 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* was very cloudy or dull over our Islands generally. Rain fell rather frequently during the earlier half of the period, but towards its close the weather became fine and the air drier, especially over England.

*Temperature* was again above the mean for the time of year, the excess ranging from 1° in the Midland Counties, to 4° in Scotland W. and over Ireland. The highest of the maxima were recorded during the earlier days of the period, and ranged from 61° in Ireland S., and 59° in Ireland N., to 54° in Scotland N. and England E. The lowest of the minima were registered either at the beginning or at the end of the week, when they varied from 22° in the Midland Counties and Scotland E., and 24° in England N.W., to 28° in Ireland S., and to 35° in the Channel Islands.

*Rainfall* exceeded the mean in most districts, but was rather less in the Midland Counties, England S.W. and S., and just equal to it in the Channel Islands.

*Bright Sunshine* was deficient in nearly all districts. The percentage of the possible duration ranged from 24 in England E., and 23 in the Channel Islands, to 3 in Scotland N. and E. and Ireland N.

*Barometer and Wind.*—At the commencement of the week an anticyclone lay over France and England, with Southerly winds in the west and north, and Easterly airs in the south. This system, however, soon receded southwards, and depressions appearing in the north and west of our Islands caused South-Westerly to Westerly winds in all parts of the Kingdom. On the morning of the 7th a small depression had reached the extreme south-west of England, and this, in conjunction with one in the north-west and an anticyclone over Scandinavia, produced Easterly to South-Easterly and Southerly winds over England; the South-Easterly wind in the east of Great Britain blew with the force of a gale, and subsequently a strong North-Westerly wind supervened over Ireland and the Scilly Islands. By the end of the week the barometer had risen very generally, and the western anticyclone had become merged with that extending south-westwards from Scandinavia. Fresh Easterly winds were prevalent in the south, and light Southerly to Westerly winds in the north and north-west.

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319 | 70 12 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 289 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head ℳ | 46 | 33 | 44·6 | 37·7 | 41·3 | + 1·2 | 7 | 18 | 3 | 0·56 | + 0·44 | * | * | * | * |
| | Stornoway ℳ | 52 | 32 | 49·0 | 37·9 | 43·7 | + 3·6 | 29 | 11 | 6 | 1·78 | + 0·51 | 2·6 | - 3·3 | 6 | - 8 |
| | Wick ℳ | 54 | 29 | 48·7 | 34·9 | 42·1 | + 3·2 | 31 | 20 | 5 | 0·67 | - 0·05 | * | * | * | * |
| | Lairg $ | 51 | 26 | 43·8 | 32·3 | 38·3 | + 0·7 | 5 | 37 | 6 | 1·25 | + 0.43 | * | * | * | * |
| | Glencarron $ | 52 | 28 | 45·8 | 35·9 | 41·1 | + 3·7 | 11 | 26 | 6 | 3·02 | + 0·77 | * | * | * | * |
| | Fort Augustus $ | 54 | 28 | 46·6 | 36·7 | 41·9 | + 3·0 | 13 | 24 | 5 | 1·33 | + 0·21 | 0·0 | - 1·7 | 0 | - 4 |
| | Fort William $ | 54 | 30 | 47·6 | 38·2 | 43·1 | + 3·1 | 24 | 11 | 6 | 1·97 | - 0·10 | 0·0 | - 2·7 | 0 | - 6 |
| 1. SCOTLAND E. | Nairn ℳ | 55 | 27 | 47·4 | 33·7 | 40·8 | + 2·7 | 15 | 35 | 5 | 1·57 | + 1·07 | * | * | * | * |
| | Aberdeen ℳ | 54 | 31 | 46·0 | 35·9 | 41·2 | + 2·8 | 11 | 26 | 5 | 1·74 | + 0·96 | 0·6 | - 8·7 | 1 | - 18 |
| | Braemar $ | 51 | 22 | 41·9 | 31·9 | 37·1 | + 1·9 | 0 | 34 | 6 | 1·25 | + 0·55 | 0·0† | - 5·0† | 0† | - 10† |
| | Ochtertyre $ | 54 | 26 | 45·1 | 33·3 | 39·4 | + 1·5 | 9 | 34 | 6 | 1·89 | + 0·91 | * | * | * | * |
| | Leith ℳ | 55 | 29 | 47·0 | 37·1 | 42·3 | + 2·2 | 23 | 14 | 5 | 1·02 | + 0·53 | * | * | * | * |
| | Marchmont $ | 53 | 23 | 45·9 | 34·6 | 40·5 | + 3·1 | 11 | 30 | 5 | 1·45 | + 0·65 | 3·3 | - 5·6 | 7 | - 11 |
| 2. ENGLAND, N.E. | Alnwick Castle ℳ | 56 | 28 | 46·4 | 35·7 | 41·3 | + 2·1 | 12 | 27 | 5 | 1·81 | + 1·06 | * | * | * | * |
| | Durham ℳ | 54 | 25 | 44·2 | 34·6 | 39·6 | + 0·9 | 6 | 29 | 5 | 0·81 | + 0·21 | 1·8 | - 8·0 | 4 | - 16 |
| | Shields ℳ | 53 | 33 | 47·1 | 39·0 | 43·2 | + 3·9 | 21 | 8 | 5 | 1·38 | + 0·85 | * | * | * | * |
| | Scarborough ℳ | | | | | | | | | | | | | | | |
| | Spurn Head ℳ | 53 | 35 | 48·3 | 40·0 | 44·3 | + 4·4 | 25 | 6 | 3 | 1·00 | + 0·52 | * | * | * | * |
| 3. ENGLAND, E. | Hillington ℳ | 52 | 26 | 45·2 | 35·4 | 40·5 | + 1·5 | 9 | 27 | 5 | 0·85 | + 0·25 | 12·1 | + 2·4 | 23 | + 5 |
| | Yarmouth ℳ | 49 | 34 | 45·9 | 38·7 | 42·4 | + 3·0 | 17 | 9 | 4 | 0·77 | + 0·15 | * | * | * | * |
| | Geldeston ℳ | 50 | 33 | 45·8 | 38·0 | 42·1 | + 2·2 | 18 | 11 | 6 | 0·68 | + 0·15 | 14·9 | + 3·2 | 28 | + 5 |
| | Cambridge ℳ | 54 | 26 | 46·7 | 35·6 | 41·4 | + 2·4 | 13 | 27 | 4 | 0·77 | + 0·36 | 10·3 | - 0·5 | 19 | - 1 |
| | Felixstowe ℳ | 51 | 32 | 45·8 | 37·9 | 42·0 | + 1·6 | 11 | 11 | 3 | 0·38 | ? | 16·3† | ? | 30† | ? |
| | Rothamsted ℳ | 54 | 25 | 45·4 | 35·0 | 40·4 | + 1·4 | 10 | 28 | 4 | 0·30 | - 0·27 | 7·6 | - 2·4 | 14 | - 5 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) ℳ | 55 | 24 | 45·9 | 32·4 | 39·4 | + 0·2 | 11 | 38 | 4 | 0·66 | + 0·18 | * | * | * | * |
| | Loughborough ℳ | 54 | 22 | 45·7 | 32·6 | 39·4 | - 0·5 | 10 | 37 | 5 | 0·55 | + 0·06 | * | * | * | * |
| | Stamford (Ketton) ℳ | 53 | 24 | 45·0 | 34·1 | 39·8 | + 0·6 | 8 | 32 | 4 | 0·43 | - 0·17 | * | * | * | * |
| | Cheadle ℳ | 53 | 27 | 45·4 | 35·4 | 40·6 | + 2·4 | 10 | 27 | 5 | 0·57 | - 0·10 | * | * | * | * |
| | Shirley (near Solihull) ℳ | 54 | 25 | 44·5 | 32·3 | 38·6 | - 1·1 | 7 | 37 | 5 | 0·31 | ? | * | * | * | * |
| | Churchstoke ℳ | 54 | 24 | 45·2 | 34·6 | 40·1 | + 0·9 | 9 | 30 | 5 | 0·40 | - 0·31 | 4·6 | - 4·2 | 9 | - 8 |
| | Hereford (Belmont) ℳ | 54 | 26 | 45·9 | 34·7 | 40·5 | + 0·3 | 11 | 30 | 5 | 0·65 | + 0·05 | * | * | * | * |
| | Cirencester ℳ | 54 | 25 | 46·7 | 34·0 | 40·6 | + 1·6 | 13 | 33 | 4 | 0·37 | - 0·28 | 9·6 | + 0·6 | 18 | + 1 |
| | Oxford ℳ | 56 | 25 | 45·9 | 35·0 | 40·7 | + 0·5 | 11 | 29 | 3 | 0·33 | - 0·20 | 5·3 | - 4·2 | 10 | - 9 |
| 5. ENGLAND, S. | London ℳ | 55 | 27 | 46·1 | 36·3 | 41·5 | + 1·1 | 11 | 25 | 3 | 0·31 | - 0·14 | 5·4† | + 0·2† | 10† | 0† |
| | Cranley ℳ | 54 | 27 | 45·8 | 35·1 | 40·7 | - 0·3 | 11 | 29 | 3 | 0·34 | ? | * | * | * | * |
| | Dungeness ℳ | ? | 29 | ? | 37·9 | ? | ? | ? | ? | 4 | 0·40 | - 0·30 | * | * | * | * |
| | Hastings (St. Leonards) ℳ | 54 | 30 | 47·8 | 39·9 | 44·0 | + 1·9 | 23 | 6 | 4 | 0·57 | - 0·11 | 14·4 | + 1·2 | 26 | + 3 |
| | Southampton ℳ | 56 | 26 | 49·5 | 37·3 | 43·6 | + 2·0 | 31 | 13 | 3 | 0·20 | - 0·50 | 7·0 | - 4·3 | 13 | - 8 |
| | Portland Bill ℳ | 55 | 29 | 48·6 | 41·7 | 45 3 | + 2·2 | 24 | 1 | 4 | 0·13 | ? | * | * | * | * |
| | Shaftesbury ℳ | 52 | 28 | 44·9 | 36·7 | 41·0 | + 2·3 | 8 | 22 | 4 | 0·15 | - 0·57 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) $ | 55 | 31 | 50·3 | 39·9 | 45·3 | + 4·3 | 32 | 6 | 6 | 1·93 | - 0·19 | * | * | * | * |
| | Glasgow $ | 53 | 31 | 45·5 | 38 4 | 42·1 | + 3·9 | 16 | 10 | 6 | 1·63 | + 0·73 | 0·0 | - 3·7 | 0 | - 8 |
| | Glenlee $ | 54 | 25 | 48·1 | 37·1 | 42·8 | + 4·4 | 26 | 14 | 7 | 1·98 | + 0·50 | * | * | * | * |
| | Douglas (Isle of Man) ℳ | 54 | 32 | 50·9 | 41·0 | 46·2 | + 3·5 | 34 | 3 | 6 | 2·09 | + 1·08 | 6·0 | - 5·0 | 12 | - 10 |
| 7. ENGLAND, N.W. | Newton Reigny ℳ | 51 | 24 | 45·1 | 34·4 | 40·0 | + 1·5 | 9 | 31 | 4 | 1·01 | ? | 1·6 | ? | 3 | ? |
| | Stonyhurst ℳ | 52 | 29 | 45·6 | 37·0 | 41·5 | + 1·8 | 10 | 21 | 4 | 1·55 | + 0·51 | 0·0 | - 7·7 | 0 | - 14 |
| | Blackpool ℳ | 53 | 26 | 47·0 | 36·2 | 41·8 | + 1·7 | 14 | 25 | 5 | 1·14 | + 0·42 | 0·0 | - 6·0 | 0 | - 13 |
| | Manchester (Prestwich) ℳ | 53 | 26 | ? 46·8 | 36·6 | ? 41·9 | ? + 2·3 | ? 13 | ? 24 | 4 | 0·73 | - 0·08 | 0·0 | ? | 0 | ? |
| | Liverpool Obsy. (Bidston) ℳ | 55 | 30 | 46·9 | 39·0 | 43·1 | + 2·6 | 20 | 8 | 5 | 0·91 | + 0·29 | 4·8 | ? | 9 | ? |
| | Llandudno ℳ | 57 | 28 | 49·0 | 40·9 | 45·1 | + 2·1 | 26 | 3 | 6 | 0·97 | + 0·27 | 8·8 | + 1·0 | 17 | + 1 |
| | Holyhead ℳ | 54 | 35 | 49·3 | 43·7 | 46·6 | + 2·0 | 32 | 0 | 5 | 1·11 | + 0·26 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery ℳ | 56 | 25 | 47·1 | 35·4 | 41·5 | + 1·7 | 14 | 28 | 5 | 0·64 | - 0·56 | * | * | * | * |
| | Pembroke ℳ | 55 | 36 | 51·9 | 46·0 | 49·1 | + 4·1 | 50 | 0 | 4 | 0·73 | - 0·19 | 7·0 | - 3·2 | 13 | - 7 |
| | Clifton ℳ | 57 | 29 | 47·0 | 38·3 | 42·8 | + 2·4 | 21 | 10 | 4 | 0·67 | - 0·07 | * | * | * | * |
| | Arlington (N. Devon) ℳ | 56 | 28 | 48·0 | 38·0 | 43·2 | + 2·2 | 25 | 11 | 5 | 0·46 | - 0·89 | * | * | * | * |
| | Cullompton ℳ | 57 | 27 | 47·6 | 35·6 | 41·8 | + 0·8 | 16 | 28 | 4 | 0·21 | - 0·58 | 6·5 | - 2·0 | 12 | - 4 |
| | Falmouth ℳ | 57 | 36 | 50·6 | 43·1 | 47·0 | + 1·2 | 35 | 0 | 4 | 0·32 | - 0·88 | 8·6 | - 4·2 | 15 | - 8 |
| | Plymouth ℳ | 56 | 32 | 50·9 | 39·7 | 45·5 | + 1·4 | 34 | 6 | 4 | 0·33 | - 0·57 | 6·7 | - 4·4 | 12 | - 8 |
| 9. IRELAND, N. | Malin Head ℳ | 54 | 37 | 49·7 | 43·1 | 46·5 | + 4·2 | 32 | 0 | 7 | 0·95 | ? | * | * | * | * |
| | Londonderry ℳ | 56 | 32 | 49·8 | 39·9 | 45·1 | + 4·1 | 31 | 6 | 7 | 2·01 | + 1·07 | * | * | * | * |
| | Edenfel (Omagh) ℳ | 53 | 30 | 47·3 | 38·0 | 42·8 | + 4·2 | 22 | 11 | 7 | 1·92 | + 1·12 | * | * | * | * |
| | Blacksod ℳ | 59 | 36 | 52·0 | 44·7 | 48·5 | + 5·3 | 46 | 0 | 7 | 1·12 | ? | * | * | * | * |
| | Markree Castle ℳ | 54 | 26 | 49·1 | 38·8 | 44·2 | + 3·9 | 29 | 9 | 7 | 0·90 | - 0·02 | 0·0 | - 9·8 | 0 | - 18 |
| | Armagh ℳ | 54 | 33 | 48·1 | 39·3 | 43·9 | + 4·2 | 25 | 8 | 7 | 0·94 | + 0·34 | 2·7 | - 7·5 | 5 | - 15 |
| | Donaghadee ℳ | 53 | 37 | 49·4 | 42·3 | 46·0 | + 3·6 | 28 | 0 | 6 | 1·27 | + 0·67 | * | * | * | * |
| 10. IRELAND, S. | Dublin ℳ | 61 | 35 | 51·6 | 42·4 | 47·2 | + 5·1 | 36 | 0 | 6 | 0·48 | + 0·01 | 1.4 | - 11·7 | 3 | - 22 |
| | Parsonstown ℳ | 56 | 28 | 49·4 | 36·3 | 43·1 | + 2·8 | 32 | 16 | 6 | 0·51 | - 0·25 | 0·8 | - 11·2 | 2 | - 20 |
| | Kilkenny ℳ | 56 | 28 | 49·7 | 38·0 | 44·1 | + 1·8 | 32 | 11 | 7 | 0·78 | + 0·10 | * | * | * | * |
| | Roche's Point ℳ | 54 | 38 | 52·1 | 45·6 | 49·0 | + 4·3 | 49 | 0 | 4 | 1·62 | + 0·45 | * | * | * | * |
| | Valencia ℳ | 57 | 33 | 53·6 | 45·3 | 49·6 | + 3·7 | 53 | 0 | 7 | 1·76 | + 0·49 | 10·1 | - 0·7 | 19 | - 2 |
| | Killarney ℳ | 57 | 28 | 52·2 | 44·5 | 48·5 | + 5·0 | 46 | 0 | 5 | 1·20 | ? | * | * | * | * |
| | Foynes ℳ | 56 | 30 | 51·0 | 40·9 | 46·2 | + 3·0 | 34 | 3 | 4 | 0·83 | ? | * | * | * | * |
| CHANNEL ISLANDS | Scilly (St. Mary's) ℳ | 58 | 45 | 54·0 | 48·0 | 51·1 | + 3·8 | 64 | 0 | 5 | 1·28 | + 0·33 | 12·0 | ? | 21 | ? |
| | Jersey ℳ | 55 | 35 | 50·1 | 42·4 | 46·4 | + 1·3 | 31 | 0 | 4 | 0·59 | - 0·26 | 15·2 | + 1·4 | 27 | + 2 |

Stations marked ℳ are in connection with the Royal Meteorological Society, and those marked $ with the Scottish Meteorological Society.

* An Asterisk is inserted in all places for which the information is not usually received.

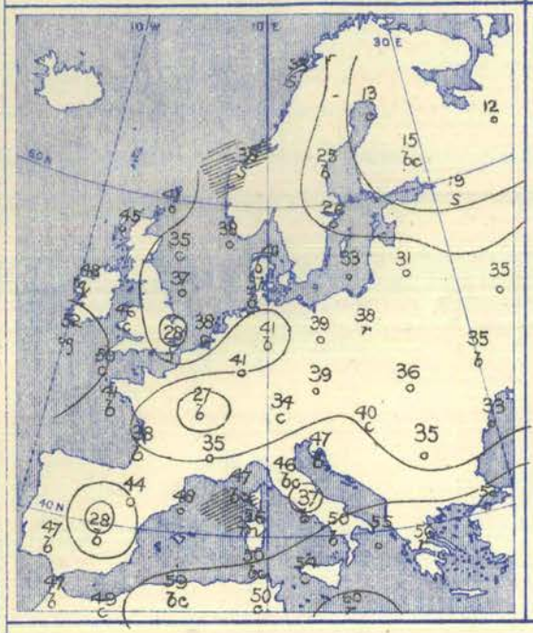
† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 3rd December.

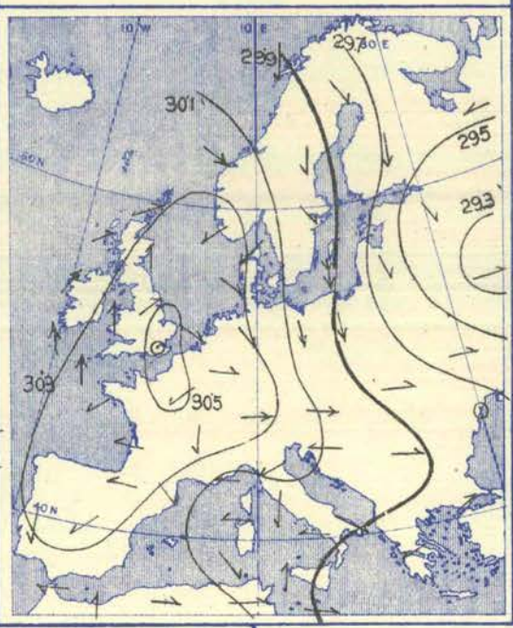
### Temperature and Weather.

8 a.m.

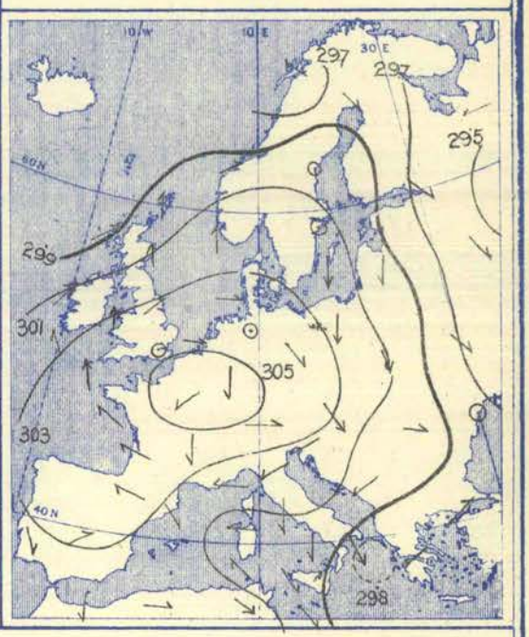


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine and bright over the Mediterranean, France, England, the North Sea and at some of the Swedish and Baltic stations; dull and unsettled elsewhere; snow at St. Petersburg and Bodö; rain in the north-west of Ireland; cold rain at Neufahrwasser; fog locally in France. Rain later in the west and north of the British Islands and on the various shores of the North Sea—most in Scotland—a little in some parts of central Europe.

*Temperature* fallen over Great Britain and the Continent; risen in Ireland. Morning readings highest, 60° at Malta, 59° at Algiers; 52° to 50° on our own south-west coasts. Lowest, (1) 12° to 20° Fahr. over northern Europe; (2) 26° at Munich, 26° at Paris; (3) 25° at Loughborough and Oxford, 28° in London, 31° at Dungeness. Rising later to several degrees above 50° over Ireland, Scotland and the north of England, to only 44° in London, 43° at Paris, to 63° at Perpignan, 70° at Algiers and Cagliari.

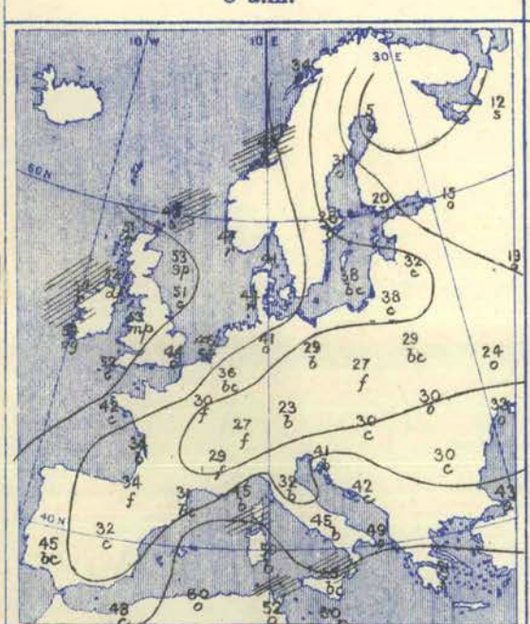
*Wind* (1) light and anticyclonic over the greater part of England and France; (2) Southerly in Ireland; South-Westerly in Scotland; (3) Northerly, strong, over the Baltic; Westerly, fresh, over central Europe; (4) mainly Northerly over the northern half of the Mediterranean. Increasing considerably from South at our western and northern stations later; remaining light over England and France.

*Barometer* in morning 30·5 ins. and more to 30·3 ins. in an anticyclone over Spain, France, England, and the North Sea. Lowest, (1) 29·3 ins. and less in a depression over central Russia; (2) about 30·2 ins. off the extreme west and north-west coasts of the British Islands; (3) below 29·9 ins. over Greece, Turkey and Asia Minor. Falling decidedly at our western stations later; rising over Russia and the Mediterranean.

## Monday, 4th December.

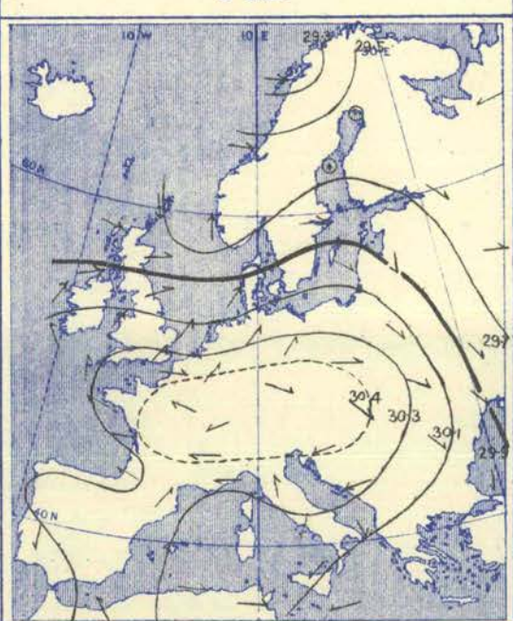
### Temperature and Weather.

8 a.m.

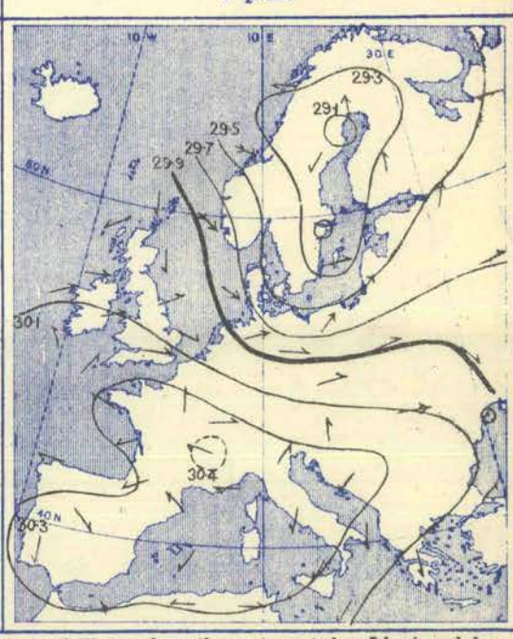


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fair on the southern and eastern coasts of England, but dull in other parts of our Islands, with rain at many of the northern and north-western stations. Rain falling also in Norway and Denmark, and snow at Bodö and Archangel. Fine over central and southern Europe as a whole, but with fog in many parts of France and Germany. Rain later in almost all parts of the United Kingdom and also over the Netherlands, Germany and the north-east of France.

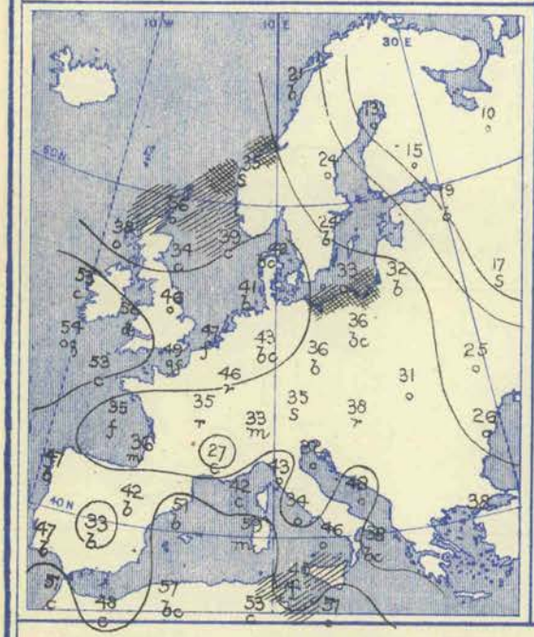
*Temperature* risen in the north-western and northern countries—very quickly over Great Britain, fallen elsewhere. Morning readings highest, 68° at Palermo, 60° at Malta and Algiers, and 57° at La Calle, above 50° at most of the Mediterranean stations and also in all the more western and northern parts of the United Kingdom. Lowest, 1° at Uleaborg, 5° at Haparanda, 12° at Archangel, and 15° at Helsingfors and St. Petersburg, and below the freezing point over eastern and central Europe generally. Rising during day to between 50° and 55° in nearly all parts of the United Kingdom, to 58° at Scilly, 60° and more in the south of France, 68° at Algiers; remaining below 50° over the greater part of France, and not exceeding 35° at Lyons.

*Wind* moderate to strong from the South-Westward over the greater part of our Islands, and also over the Netherlands, Denmark, north Germany and the south of Scandinavia, but North-Westerly in the north of Scotland, and light from South-South-East at Valencia (Ireland). Light from the Eastward or South-Eastward in France, and from the North-Eastward or Northward in Spain; Northerly also over Greece and southern Italy, and strong in force at Brindisi. Calm over the Gulf of Bothnia, light from the North-Westward in Russia. Subsequently veering to the Westward over England and Ireland; shifting to the Northward or North-Eastward in Scotland.

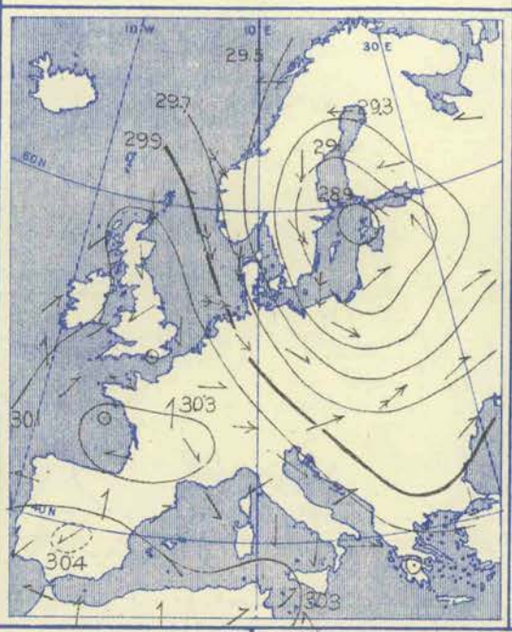
*Barometer* highest, 30·4 ins. and upwards over France and the central and southern parts of Germany; 30·2 ins. and upwards in an anticyclone covering the whole of central and southern Europe, and extending over the southern parts of our own Islands. Lowest, 29·3 ins. and less in a depression off the northern parts of the Norwegian coasts, 29·6 ins. and less in a secondary disturbance off the south-west of Norway. Anticyclone in France moving southwards, and both depressions moving south-eastwards later, and barometer rising briskly in the extreme north.

## Tuesday, 5th December.

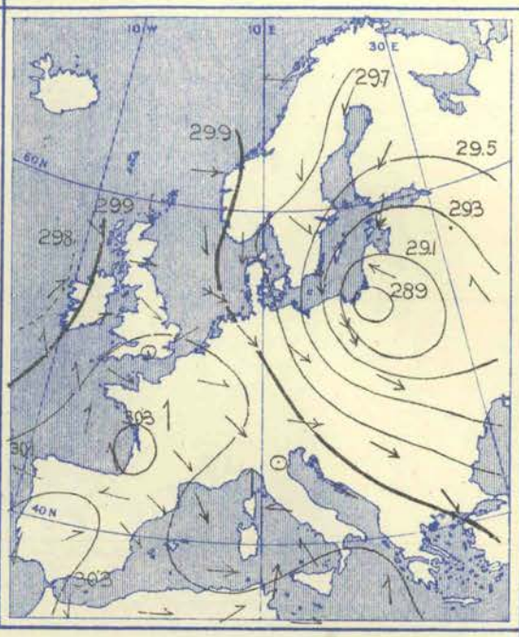
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning dull over our Islands and the neighbouring parts of the Continent, with fog or drizzle over England, and more decided rain in the north of Ireland, as well as at Paris and Brussels. Fine over a considerable portion of northern Europe, but snow falling at Christiansund, Helsingfors and Moscow; rain at Breslau and Vienna, and snow at Munich and Buda Pesth; fine over the Spanish Peninsula and the extreme south of France. Rain falling during day in nearly all parts of north-western Europe, and snow in the south of Sweden.

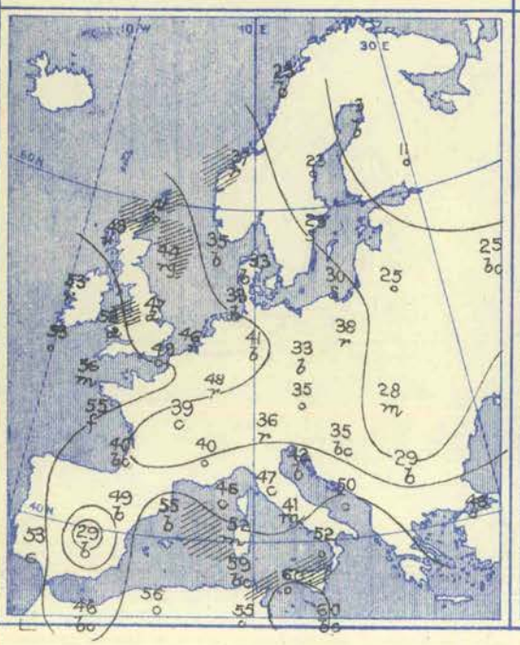
*Temperature* risen over England, France, and central Europe generally, and also over Finland; fallen elsewhere—quickly in Scotland. Morning readings highest, (1) 55° at Sanguinaire, and 57° at Malta and Algiers; (2) 54° at Valencia (Ireland), and 53° at several of our other south-western stations. Lowest, 10° at Archangel, 13° at Uleaborg, and 15° at Haparanda and Kuopio; below the freezing point over Sweden and Russia generally, and also over central France and the north of Scotland. Daily maxima below 50° in the north and east of the Islands, but [illegible] and reaching 59° at Blacksod Point.

*Wind* light to moderate from the Southward or South-Westward in the west of our Islands; light from the Northward on the north and east coasts of Great Britain, and blowing a gale from the same quarter or from North-West over Denmark, the Baltic, and the greater part of Scandinavia; Westerly over south Germany and Austria; South-Westerly over the central and southern parts of Russia; Easterly in the extreme northern parts of Russia and Scandinavia. Westerly in the English Channel; variable over France; North-Easterly over the Spanish Peninsula; Northerly or North-Westerly in Italy. No important change occurring later.

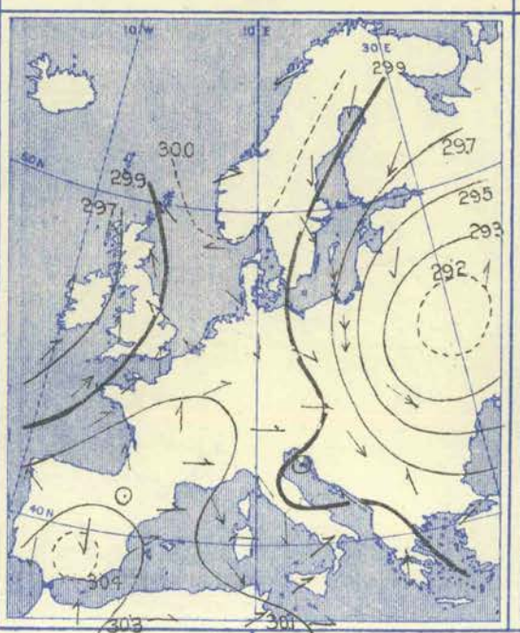
*Barometer* highest, 30·4 ins. and upwards over central Spain; 30·1 ins. and upwards in an anticyclone covering the greater part of western and southern Europe. Lowest, 28·9 ins. and less in a depression with its centre near the mouth of the Gulf of Finland; gradients steep over Scandinavia, Denmark, and the Baltic. New disturbance appearing later off our own western coasts, and barometer falling decidedly in Ireland.

## Wednesday, 6th December.

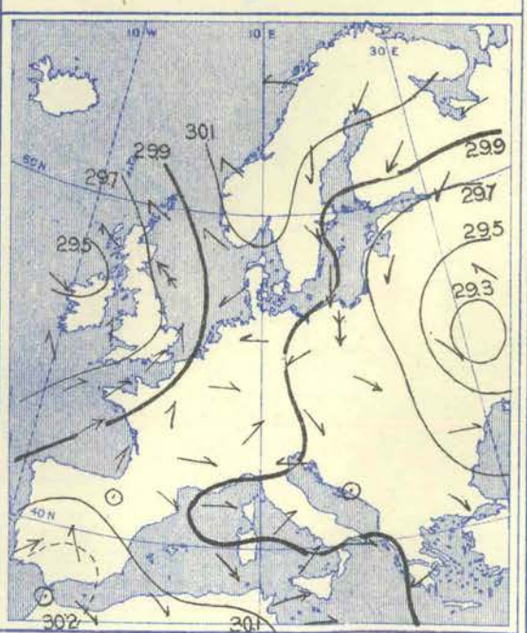
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning in a very disturbed condition both over our Islands and also over Russia, eastern Prussia, and Poland; fair over most parts of Scandinavia, as well as over Spain and the south-west of France. Rain later over the whole of our Islands, the greater part of France, and south Germany—amounts large in several localities—fog or mist prevalent in the north of England.

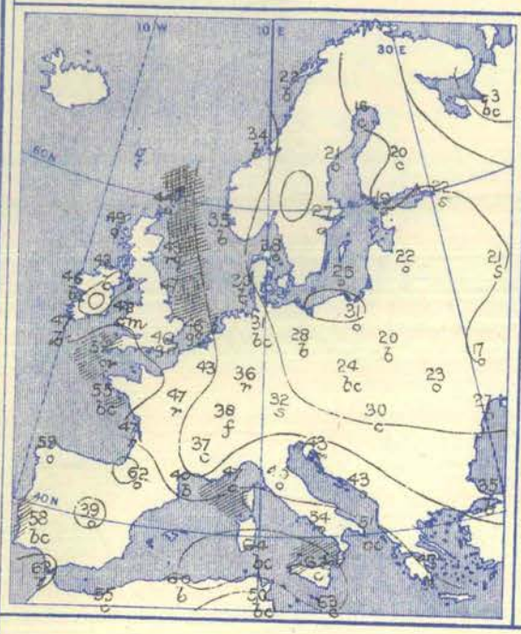
*Temperature* risen considerably over Scotland and some parts of France; fallen in the west of Russia. Morning readings highest, 60° at Malta, Palermo, and Bilbao, 56° at Scilly and Lorient, and above 50° on all our west and south-west coasts, as well as at most of the Mediterranean stations. Lowest, 11° to 15° over Finland, 23° in Sweden, above 32° over the greater part of central Europe. Remaining very mild over our Islands and France till night.

*Wind* (1) Northerly and North-Westerly over the Baltic and western parts of Russia—strong to a gale in force; (2) Southerly (South-South-West to South-South-East) over the British Islands, and strong at the Scotch stations; (3) Light and anticyclonic both over Spain and France, and also over Norway. Becoming more Easterly in Scotland later, and shifting to the Westward in the north-west of Ireland.

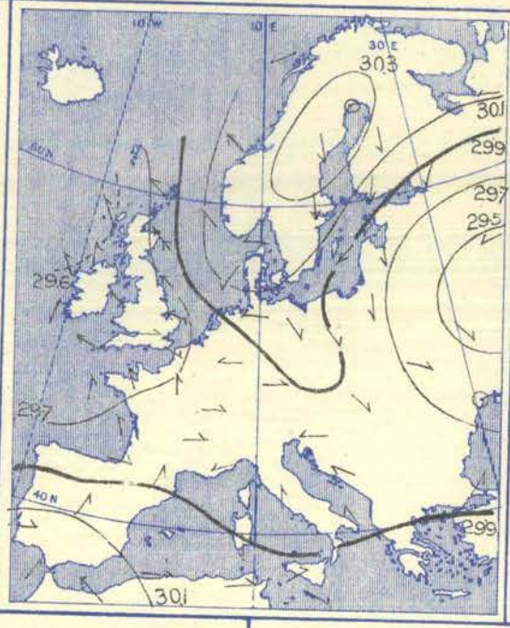
*Barometer* highest, (1) 30·0 ins. and more over Norway; (2) 30·4 ins. to 30·1 ins. over Spain and France—the distribution in both cases being anticyclonic. Lowest, (1) 29·2 ins. and less in a depression over central Russia; (2) 29·7 ins. and less over the western parts of Ireland and the Hebrides. Falling over our Islands later, most in the east; changing irregularly in Ireland.

## Thursday, 7th December.

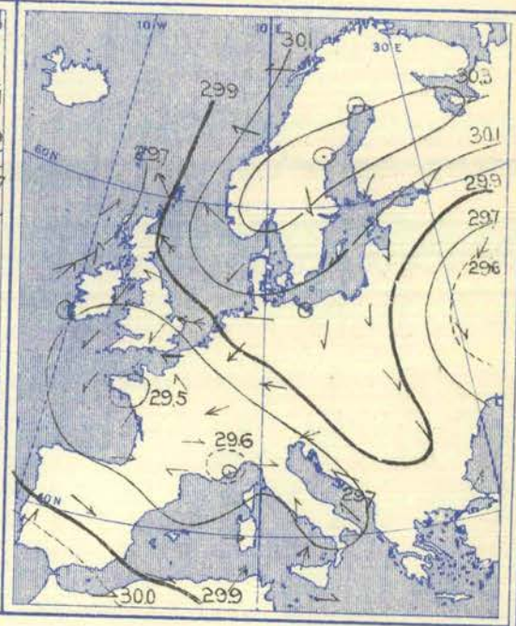
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning very unsettled and in a transitory condition generally. Fine and bright in Norway and the west of Ireland, dull over the Continent generally, with snow or rain in many places; very unsettled over Great Britain, very rainy on our east coast. Rain later over Ireland and England, large quantities in some parts of France, some snow at Wisby.

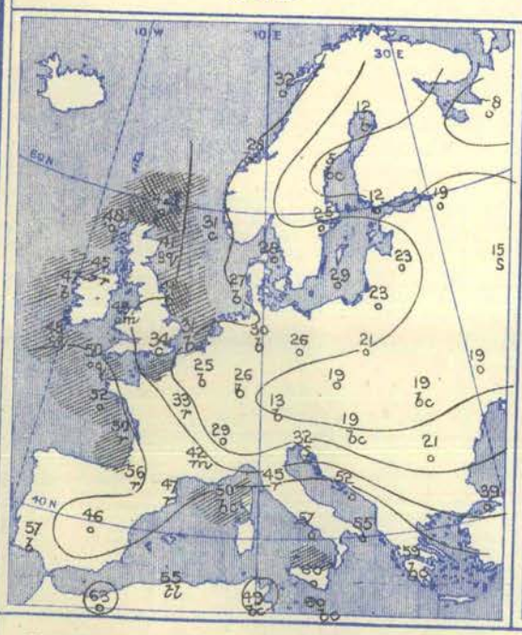
*Temperature* fallen greatly over central Ireland, less decidedly over England and central Europe; risen over France and Italy. Morning readings, highest, 64° at Cagliari, 63° at Malta, 62° both at Palermo and Biarritz, 55° to 53° on the coasts of Brittany and the south-west of England. Lowest (1), −3° at Archangel, +16° at Haparanda, 21° at Hernösand and Moscow; (2), 17° at Kiev, and below the Freezing Point over eastern and central Europe; 47° at Paris. Falling decidedly later over England, France and Germany.

*Wind* light and anticyclonic over the western and northern parts of Scandinavia and also over the extreme south of Spain. Cyclonic (1), from the Northward over the Baltic, North-Westerly over Central Europe; (2), from between South-East and East in our Islands as a whole (very strong on the east coast), and Southerly in the west of France; (3), very variable over the Mediterranean.

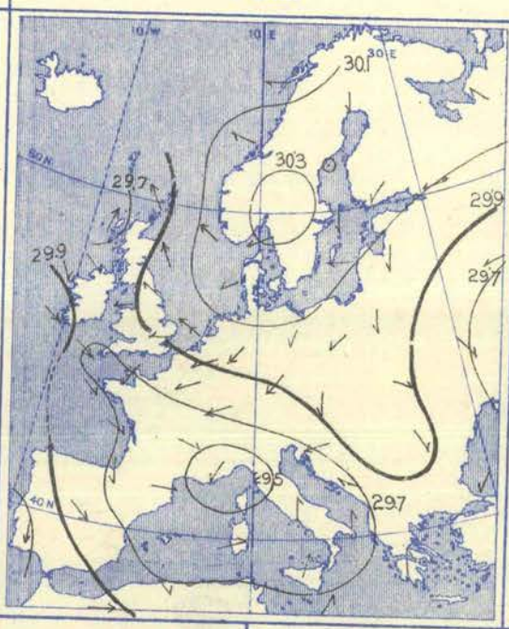
*Barometer*, highest (1), 30·3 ins. and more to 30·1 ins. over Norway, Sweden and Denmark; (2), 30·1 ins. and more over the south of Spain and Morocco. Lowest (1), 29·3 ins. to 29·4 ins. in a depression over central Russia; (2), 29·5 ins. and less in a new depression approaching the mouth of the Channel from the Westward; (3), 29·8 ins. and less in a shallow disturbance over the south-east of France and north of Italy. Depression near Scilly moving south-eastwards later; barometer rising over the United Kingdom.

## Friday, 8th December.

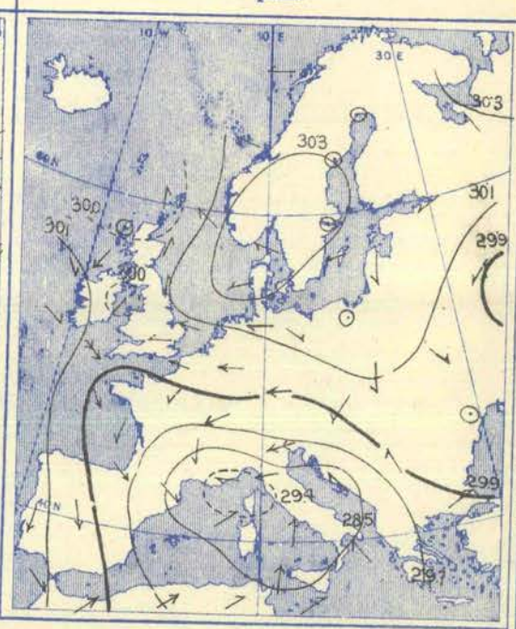
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair but dull over the eastern half of Europe, fine and bright over the east of France, rainy over the Mediterranean and western parts of France, very variable and changeable over our Islands—clear at Loughborough, rainy over the Irish Sea and some parts of the English Channel; thunder and lightning at Algiers. Rain later at our northern, western, and south-western stations, sleet at Jersey, and a large quantity of rain in the west and south-west of France.

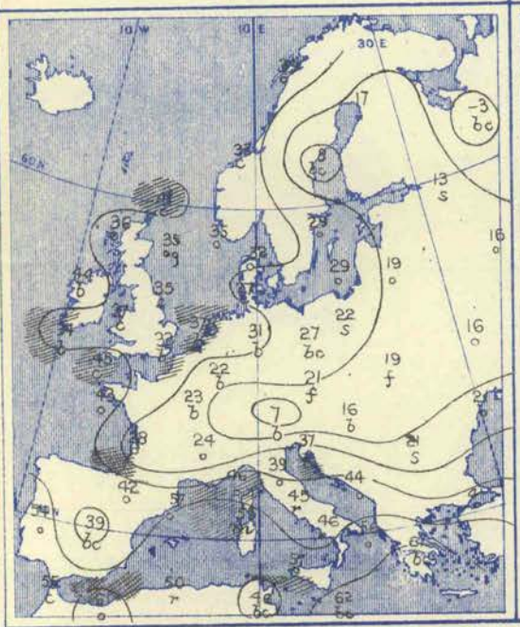
*Temperature* in morning still highest at the coast stations, but low and falling over the inland countries and over England. Morning readings highest, 60° at Malta and Palermo, and above 50° over the Mediterranean generally, as well as at Brest and Scilly. Lowest (1), −8° Fahr. at Archangel, +5° at Hernosand, 6° at Helsingfors, 15° at Moscow; (2), 13° at Munich, 19° at Lemberg and Kieff, 25° at Brussels, 33° at Paris; (3), 31° at Loughborough, 34° at London. Falling later over our Islands and western Europe.

*Wind* (1), light to moderate over northern Europe; (2), strong to a gale from South-East on our eastern coasts, but North-North-Westerly, strong in Ireland and the Scilly Isles, and moderate over the Bay of Biscay; (3), a separate cyclonic system prevalent over the Mediterranean, but no gales there. Wind moderating greatly later on our north-east coast and North-Westerly breeze in Ireland dying down.

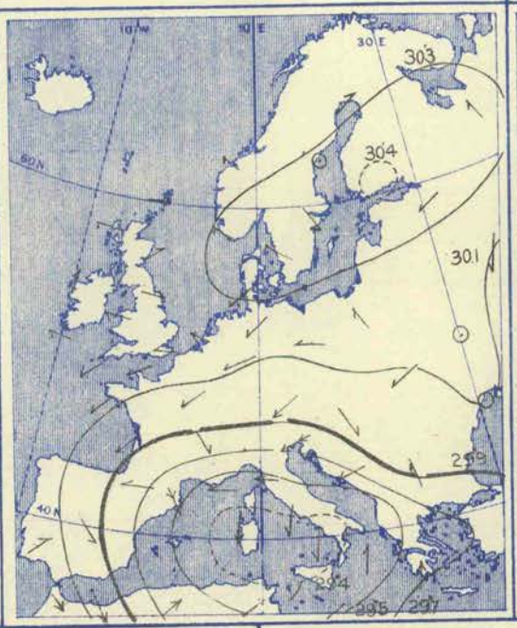
*Barometer* highest, (1), 30·3 ins. and more to 30·1 ins. in an anticyclone covering Scandinavia and the eastern part of the North Sea; (2), 29·9 ins. and more in the west of Ireland. Lowest, (1), 29·7 ins. and less both in the south-east of Russia and off our own extreme north-west coasts; (2), 29·4 ins. over the northern part of the Mediterranean. Rising all day over western, north-west and central Europe, but rise slackening in extreme west at night.

## Saturday, 9th December.

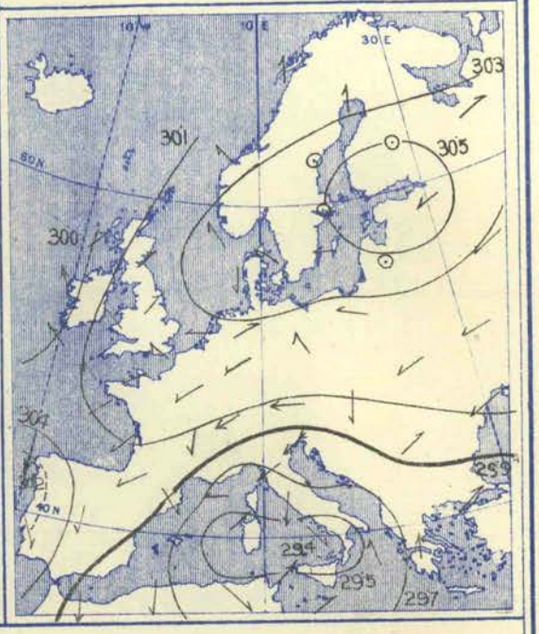
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair over the Continent as a whole, as well as over England and Ireland, but foggy in some places; rainy over the Mediterranean. Considerable rain at night on our own south-western coasts (0·6 ins. at Valencia, and 0·16 ins. at Corunna and Nice). Remaining fair over England and the north of France.

*Temperature* fallen fast again over France; fallen also over Ireland and Scotland. Morning readings, highest, 43° to 45° at the mouth of the English Channel, 44° at Blacksod Point. Lowest (1), − 3° Fahr. at Archangel, + 8° at Hernosand, 13° at St. Petersburg, 16° at Moscow; (2), 7° at Munich, 16° at Buda-Pesth, 18° at Belfort; (3), 27° at Loughborough, 33° in London, 31 at Parsonstown. Rising later to 51° at Valencia, above 40° over Ireland generally, 47° at Scilly, 42° at Yarmouth. Not exceeding 37° in London, nor 33° at Liverpool.

*Wind* subsiding over north-western Europe, but still strong from East-South-East on our eastern coasts; increasing from North-East and North over the southern parts of the Continent, and blowing a gale from North-West in the north-east of Spain. Increasing considerably from South-East in Ireland later, remaining South-Westerly (but backing) over Scotland.

*Barometer*, highest, 30·4 ins. to 30·3 ins. over northern Europe, and exceeding 30·2 ins. in a ridge extending thence over England and Ireland. Lowest (1), below 30·2 ins. over Scotland and the North of Ireland; (2), 29·4 ins. and less to 29·5 ins. in a large depression over the Mediterranean. Falling decidedly in Ireland later. Rising a little over England, briskly over France.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: = a heavy gale = a gale; = a fresh to strong breeze; = a light to moderate breeze; and = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

At the beginning of this week pressure was highest (30·5 ins. and more to 30·4 ins.) in an anticyclone covering France, the southern half of England and the North Sea. Lowest (1), (29·5 ins. and less) over the northern half of Russia; (2), 30·2 ins. and less off the north-west of our Islands, and (3), 30·1 ins. and less over the southern half of Italy, Sicily and Malta. Temperature was high over the British Islands, low over northern Europe and central France. During the next day or two depressions moved from north-west to south-east over the Baltic towards Russia, and the anticyclone moved southwards, so that cold weather began to increase over northern Europe, while in our Islands the weather was mild.

On Wednesday morning (pressure having receded quickly over Norway) two high pressures prevailed, one over Spain and France, the other over Norway, and two low pressure systems appeared simultaneously—one over central Russia, the other over the western parts of our Islands and the adjacent parts of the Atlantic. The first brought cold, strong Northerly to Westerly gales to the Baltic and central Europe, the other mild Southerly (South-Easterly to South-Westerly) winds to our Islands, while over England temperature began to give way.

On Thursday small local depressions appeared at the mouth of the Channel and Brittany (and subsequently over the south of France), and as the barometer over the British Islands and Norway rose, cold winds became general and continued (with slight intermission in the west) till the end of the week.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 290.

| STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 1·0 | ? | 2 | ? | WATERGATE (Emsworth) | 9·4 | ? | 17 | ? |
| STRATHPEFFER SPA | 2·6 | − 4·6 | 6 | −10 | BRIGHTON | 11·4 | + 0·4 | 21 | 0 |
| EDINBURGH | 1·7 | − 5·3 | 3 | −11 | WORTHING | 8·8 | ? | 16 | ? |
| MORPETH | 1·3 | ? | 3 | ? | BOGNOR | 8·2* | ? | 15* | ? |
| NEWCASTLE-ON-TYNE | 1·5 | ? | 3 | ? | EASTBOURNE | 10·2 | − 1·6 | 19 | − 3 |
| OSWALDKIRK (Yorkshire) | 4·6 | − 4·4 | 9 | − 8 | VENTNOR HOSPITAL | 3·6 | ? | 7 | ? |
| YORK | 3·1 | − 3·1 | 6 | − 7 | SOUTHPORT | 0·3 | ? | 1 | ? |
| LOWESTOFT | 13·2 | ? | 24 | ? | COLWYN BAY | 13·0 | ? | 25 | ? |
| HOLLESLEY BAY | 16·5 | ? | 31 | ? | RHYL | 6·1* | ? | 12* | ? |
| SHEFFIELD | 3·5 | ? | 7 | ? | ABERDOVEY | 12·8* | ? | 24* | ? |
| WORKSOP | ? 6·0 | − 2·2 | ? 11 | − 5 | TENBY | 10·6 | − 1·7 | 19 | − 5 |
| THURCASTON (Leicestershire) | 7·9 | − 0·4 | 15 | 0 | NEWQUAY | 2·3 | − 9·5 | 4 | −17 |
| MARGATE | 12·1 | + 0·4 | 22 | + 2 | TORQUAY | 12·0* | + 1·7 | 21* | + 3 |
| WESTBOURNE (Emsworth) | 9·2* | − 1·5 | 17* | − 3 | GUERNSEY | | | | |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 50.] *Third Series.* WEEK ENDING SATURDAY, DECEMBER 16TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 296.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 51 | 13 | 40·7 | 30·5 | 35·8 | 2 below | 0 | − 9 | 43 | +17 | 2367 | +405 | 718 | − 59 |
| | 1. SCOTLAND, EAST | 52 | 8 | 35·8 | 22·5 | 29·4 | 8 below | 0 | − 9 | 88 | +55 | 2586 | +236 | 849 | + 9 |
| | 2. ENGLAND, N.E. | 38 | 16 | 33·5 | 23·2 | 28·6 | 10 below | 0 | −11 | 94 | +68 | 2918 | +356 | 583 | − 89 |
| | 3. ENGLAND, EAST | 40 | 8 | 34·0 | 22·2 | 28·3 | 10 below | 0 | −12 | 96 | +66 | 3368 | +408 | 590 | −171 |
| | 4. MIDLAND COUNTIES | 42 | 5 | 32·6 | 20·2 | 26·7 | 12 below | 0 | −12 | 107 | +77 | 3334 | +402 | 692 | − 91 |
| | 5. ENGLAND, SOUTH | 46 | 19 | 36·5 | 26·5 | 31·7 | 8 below | 0 | −19 | 72 | +53 | 3805 | +553 | 392 | −170 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 49 | 9 | 37·6 | 27·5 | 32·7 | 7 below | 0 | −14 | 65 | +44 | 2775 | +273 | 498 | − 83 |
| | 7. ENGLAND, N.W. | 47 | 12 | 35·9 | 25·0 | 30·7 | 9 below | 0 | −15 | 79 | +59 | 3169 | +425 | 412 | −138 |
| | 8. ENGLAND, S.W. | 50 | 13 | 41·0 | 28·4 | 34·9 | 7 below | 0 | −23 | 50 | +36 | 3685 | +602 | 391 | −116 |
| | 9. IRELAND, NORTH | 53 | 25 | 43·9 | 34·4 | 39·3 | 1 below | 5 | − 9 | 29 | + 9 | 3010 | +377 | 358 | −140 |
| | 10. IRELAND, SOUTH | 54 | 27 | 47·1 | 35·3 | 41·4 | 1 below | 14 | − 9 | 28 | +13 | 3529 | +504 | 278 | −101 |
| | —CHANNEL ISLANDS | 54 | 24 | 44·5 | 36·4 | 40·6 | 5 below | 7 | −29 | 22 | +18 | 4459 | +866 | 103 | − 56 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 296.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 4 | 7 | 6 less | 223 | −12 | 51·3 | + 3·5 | 7 | + 4 | 17 | + 7 | 1204 | +141 | 27 | + 3 |
| | 1. SCOTLAND, EAST | 3 | 4 | 2 less | 191 | 0 | 31·6 | + 0·9 | 6 | − 1 | 13 | − 2 | 1332 | + 71 | 31 | + 2 |
| | 2. ENGLAND, N.E. | 4 | 4 | 2 less | 165 | −15 | 23·0 | − 2·6 | 4 | − 3 | 8 | − 6 | 1340 | +110 | 32 | + 3 |
| | 3. ENGLAND, EAST | 3 | 2 | 3 less | 149 | −28 | 21·8 | − 3·4 | 9 | − 4 | 16 | − 8 | 1849 | +276 | 42 | + 7 |
| | 4. MIDLAND COUNTIES | 3 | 3 | 3 less | 146 | −27 | 24·4 | − 2·9 | 7 | 0 | 14 | 0 | 1614 | +307 | 39 | + 7 |
| | 5. ENGLAND, SOUTH | 1 | 2 | 4 less | 127 | −42 | 23·7 | − 4·5 | 13 | + 1 | 24 | + 1 | 1968 | +361 | 45 | + 8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 2 | 8 | 6 less | 210 | + 9 | 49·7 | + 0·2 | 4 | − 3 | 9 | − 5 | 1340 | + 12 | 31 | 0 |
| | 7. ENGLAND, N.W. | 2 | 2 | 6 less | 180 | − 8 | 34·1 | + 0·2 | 13 | + 4 | 24 | + 7 | 1595 | +265 | 37 | + 6 |
| | 8. ENGLAND, S.W. | 4 | 9 | 1 less | 165 | −27 | 36·0 | − 3·0 | 11 | 0 | 20 | 0 | 1890 | +263 | 44 | + 6 |
| | 9. IRELAND, NORTH | 4 | 13 | 5 more | 217 | − 1 | 35.9 | + 0·1 | 4 | − 5 | 8 | −10 | 1391 | +140 | 32 | + 3 |
| | 10. IRELAND, SOUTH | 5 | 23 | 14 more | 180 | −18 | 39·2 | + 1·8 | 7 | − 4 | 13 | − 9 | 1594 | +172 | 37 | + 4 |
| | — CHANNEL ISLANDS | 4 | 13 | 4 more | 157 | −47 | 26·9 | − 5·6 | 11 | − 1 | 20 | − 3 | 2104 | +304 | 51 | + 7 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was very cold and wintry generally, with considerable falls of snow in many parts of the Kingdom, and of rain in Ireland and the south-west of England. At the end of the week the rainfall in the west and north-west of Ireland became unusually heavy.

*Temperature* was below the mean. Over Ireland and in Scotland N. the deficit was only 1° or 2°, but elsewhere it ranged from 5° in the Channel Islands to as much as 9° in England N.W., 10° in England N.E. and E., and 12° in the Midland Counties. The highest of the maxima were registered on the 10th, and varied from 54° in Ireland S. and the Channel Islands to 40° in England E., and 38° in England N.E. During the greater part of the week the daily maxima were extremely low over England; at many stations they were at times below 32°, while at Belmont (Hereford), on the 14th and 15th, the thermometer did not rise above 23°. The lowest of the minima, which were recorded on rather irregular dates, ranged from 5° in the Midland Counties (at Hereford on Friday and Saturday), 8° in Scotland E. and England E. (at Braemar and Geldeston), and 9° in Scotland W. (at Glenlee) to 19° in England S., 24° in the Channel Islands and to between 25° and 27° in Ireland. The lowest reading reported from any station having a thermometer exposed on the ground was −7° at Hodsock Priory (Worksop).

*Rainfall* was greater than the mean over Ireland and in the Channel Islands, but less in all other districts. The fall experienced in the west and north-west of Ireland on Saturday amounted to 3·27 ins. at Blacksod, and 1·92 ins. at Valencia.

*Bright Sunshine* was deficient over the Kingdom as a whole, but exceeded the mean in a few localities. The percentage of the possible duration ranged from 24 in England S. and N.W., and 20 in the Channel Islands and England S.W. to 9 in Scotland W., and 8 in Ireland N.

*Barometer and Wind.*—During the whole of this period the barometer was high over Scandinavia, and the anticyclone occasionally extended to the north and east of the United Kingdom. Several depressions, however, appeared in the west, and these, after causing strong Southerly winds or gales on our western coasts, mostly moved south-eastwards or southwards to the Bay of Biscay or Spain. Over the other parts of the Kingdom the winds were generally fr m between South-East and North-East, and the former blew strongly at times in the north-east of Scotland.

207 | 90 Wy. & S. Ltd.
319 | 70 12 | 99.

NOTE.—Owing to the operation of the Factory Act the Weekly Weather Report for next week will not be issued until Saturday.

# II.—DATA from which the SUMMARY on page 295 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 46 | 32 | 42·3 | 35·4 | 39·0 | − 0·4 | 1 | 24 | 7 | 1·15 | + 0·17 | * | * | * | * |
| | Stornoway | 50 | 32 | 44·4 | 33·4 | 39·1 | − 0·1 | 7 | 33 | 6 | 1·36 | + 0·07 | 3·4 | − 2·2 | 8 | − 5 |
| | Wick | 45 | 27 | 41·3 | 30·4 | 36·1 | − 1·9 | 0 | 41 | 3 | 0·38 | − 0·35 | * | * | * | * |
| | Lairg Ⓢ | 46 | 13 | 36·8 | 24·6 | 30·9 | − 5·8 | 0 | 78 | 2 | 0·23 | − 0.65 | * | * | * | * |
| | Glencarron Ⓢ | 51 | 26 | 39·9 | 29·2 | 34·8 | − 2·0 | 0 | 50 | 2 | 0·61 | − 1·61 | * | * | * | * |
| | Fort Augustus Ⓢ | 49 | 20 | 39·4 | 28·9 | 34·4 | − 3·7 | 0 | 53 | 2 | 0·14 | − 0·98 | 10·5 | + 9·0 | 23 | +19 |
| | Fort William Ⓢ | 51 | 25 | 40·5 | 31·4 | 36·1 | − 3·2 | 0 | 41 | 3 | 1·32 | − 0·78 | 3·2 | + 0·9 | 7 | + 1 |
| 1. SCOTLAND E. | Nairn | 52 | 21 | 40·7 | 26·3 | 33·8 | − 4·0 | 0 | 57 | 0 | — | − 0·47 | * | * | * | * |
| | Aberdeen | 44 | 16 | 38·6 | 28·0 | 33·5 | − 4·3 | 0 | 60 | 7 | 0·79 | + 0·07 | 3·9 | − 5·1 | 8 | − 12 |
| | Braemar Ⓢ | 40 | 8 | 32·1 | 14·7 | 23·8 | −10·7 | 0 | 127 | 4 | 0·64 | − 0·03 | 8·7† | + 3·9† | 19† | + 9† |
| | Ochtertyre Ⓢ | 42 | 12 | 34·6 | 21·4 | 28·3 | − 8·8 | 0 | 96 | 2 | 0·83 | − 0·12 | * | * | * | * |
| | Leith | 44 | 12 | 36·7 | 21·6 | 29·5 | − 9·8 | 0 | 88 | 2 | 0·39 | − 0·06 | * | * | * | * |
| | Marchmont Ⓢ | 39 | 16 | 32·0 | 23·0 | 27·7 | − 9·0 | 0 | 100 | 0 | — | − 0·73 | 7·0 | − 0·8 | 15 | − 2 |
| 2. ENGLAND, N.E. | Alnwick Castle | 37 | 17 | 33·3 | 22·7 | 28·2 | −10·2 | 0 | 97 | 4 | 0·62 | − 0·09 | * | * | * | * |
| | Durham | 34 | 16 | 32·3 | 19·6 | 26·2 | −11·2 | 0 | 111 | 5 | 0·36 | − 0·25 | 7·4 | − 2·4 | 15 | − 5 |
| | Shields | 38 | 25 | 35·0 | 27·3 | 31·3 | − 7·5 | 0 | 75 | 5 | 0·36 | − 0·16 | * | * | * | * |
| | Scarborough Ⓜ | | | | | | | | | | | | | | | |
| | Spurn Head | ? | 27 | ? | 30·1 | ? | ? | ? | ? | 3 | 0·06 | − 0·42 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 37 | 15 | 34·0 | 18·9 | 26·6 | −11·0 | 0 | 108 | 2 | 0·13 | − 0·45 | 9·3 | + 0·2 | 18 | 0 |
| | Yarmouth | 38 | 18 | 35·0 | 26·7 | 31·0 | − 7·5 | 0 | 77 | 3 | 0·45 | − 0·15 | * | * | * | * |
| | Geldeston | 38 | 8 | 34·0 | 17·2 | 25·9 | −12·8 | 0 | 113 | 3 | 0·30 | − 0·20 | 4·4 | − 6·7 | 8 | −14 |
| | Cambridge | 38 | 17 | 33·4 | 21·9 | 27·9 | −10·1 | 0 | 99 | 2 | 0·06 | − 0·34 | 4·9 | − 5·0 | 9 | −10 |
| | Felixstowe | 40 | 21 | 35·4 | 26·2 | 31·0 | − 8·4 | 0 | 77 | 3 | 0·21 | ? | 7·1† | ? | 13† | ? |
| | Rothamsted | 35 | 14 | 32·0 | 22·4 | 27·4 | −10·6 | 0 | 102 | 3 | 0·13 | − 0·42 | 5·5 | − 4·2 | 10 | − 8 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 35 | 10 | 32·6 | 19·0 | 26·1 | −11·8 | 0 | 111 | 5 | 0·28 | − 0·21 | * | * | * | * |
| | Loughborough | 38 | 8 | 33·6 | 19.7 | 26·9 | −11·5 | 0 | 106 | 3 | 0·25 | − 0·26 | * | * | * | * |
| | Stamford (Ketton) | 37 | 13 | 32·4 | 21·6 | 27·2 | −10·4 | 0 | 104 | 3 | 0·22 | − 0·32 | * | * | * | * |
| | Cheadle Ⓜ | 37 | 17 | 32·5 | 22·2 | 27·6 | − 9·6 | 0 | 101 | 3 | 0·47 | − 0·23 | * | * | * | * |
| | Shirley (near Solihull) | 35 | 10 | 33·1 | 20·0 | 26·8 | −11·2 | 0 | 106 | 3 | 0·47 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 40 | 10 | 32·0 | 19·3 | 25·9 | −12·5 | 0 | 113 | 1 | 0·22 | − 0·48 | 12·4 | + 3·9 | 24 | + 7 |
| | Hereford (Belmont) Ⓜ | 42 | 5 | 31·5 | 16·0 | 24·1 | −14·9 | 0 | 125 | 0 | — | − 0·53 | * | * | * | * |
| | Cirencester | 39 | 12 | 32·7 | 21·0 | 27·1 | −10·8 | 0 | 104 | 3 | 0·41 | − 0·21 | 6·5 | − 2·5 | 12 | − 5 |
| | Oxford | 39 | 15 | 33·4 | 22·9 | 28.4 | −10·6 | 0 | 95 | 3 | 0·28 | − 0·21 | 8·4 | − 0·8 | 16 | − 2 |
| 5. ENGLAND, S. | London | 43 | 23 | 35·3 | 27·6 | 31·6 | − 7·8 | 0 | 73 | 2 | 0·05 | − 0·42 | 3·3† | − 1·5† | 6† | − 4† |
| | Cranley Ⓜ | 43 | 20 | 35·7 | 25·5 | 30·8 | − 9·2 | 0 | 78 | 0 | — | ? | * | * | * | * |
| | Dungeness | ? | 21 | ? | 26·6 | ? | ? | ? | ? | 0 | — | − 0·65 | * | * | * | * |
| | Hastings (St. Leonards) | 43 | 24 | 35·7 | 27·1 | 31·6 | − 9·5 | 0 | 73 | 0 | — | − 0·67 | 19·1 | + 6·2 | 35 | +12 |
| | Southampton | 45 | 21 | 36·6 | 25·8 | 31·4 | − 9·3 | 0 | 74 | 3 | 0·26 | − 0·45 | 6·0 | − 5·1 | 11 | −10 |
| | Portland Bill | 46 | 25 | 40·6 | 29·1 | 35·1 | − 6.8 | 0 | 48 | 3 | 0·67 | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 41 | 19 | 35·0 | 23·9 | 29·7 | − 7·5 | 0 | 86 | 2 | 0·45 | − 0·25 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 49 | 30 | 39·2 | 32·2 | 35·8 | − 4·5 | 0 | 43 | 5 | 1·81 | − 0·28 | * | * | * | * |
| | Glasgow | 43 | 22 | 35·9 | 26·2 | 31·2 | − 7·0 | 0 | 76 | 1 | 0·18 | − 0·72 | 0·0 | − 3·7 | 0 | − 8 |
| | Glenlee Ⓢ | 41 | 9 | 34·8 | 18·9 | 27·2 | −10·7 | 0 | 104 | 2 | 0·53 | − 0·90 | * | * | * | * |
| | Douglas (Isle of Man) | 48 | 29 | 40·6 | 32·5 | 36·7 | − 5·2 | 0 | 37 | 1 | 0·58 | − 0·46 | 8·8 | − 1·2 | 17 | − 3 |
| 7. ENGLAND, N.W. | Newton Reigny | 39 | 12 | 33·3 | 20·3 | 27·1 | − 9·2 | 0 | 104 | 3 | 0·08 | ? | 5·5 | ? | 11 | ? |
| | Stonyhurst | 40 | 19 | 33·2 | 25·6 | 29·6 | − 8·8 | 0 | 87 | 3 | 0·27 | − 0·80 | 7·3 | + 0·4 | 14 | + 1 |
| | Blackpool Ⓜ | 40 | 16 | 35·7 | 22·6 | 29·4 | −10·1 | 0 | 88 | 1 | 0·35 | − 0·37 | 7·7 | + 2·1 | 15 | + 3 |
| | Manchester (Prestwich) | 40 | 16 | 34·9 | 23·5 | 29·4 | − 8·8 | 0 | 88 | 3 | 0·38 | − 0·44 | 0·0 | ? | 0 | ? |
| | Liverpool Obsy. (Bidston) | 39 | 21 | 34·1 | 25·3 | 29·9 | −10·2 | 0 | 85 | 1 | 0·12 | − 0·48 | 15·6 | ? | 30 | ? |
| | Llandudno Ⓜ | 45 | 25 | 37·4 | 28·1 | 32·9 | − 9·2 | 0 | 64 | 1 | 0·24 | − 0·46 | 16·5 | + 9·4 | 32 | +18 |
| | Holyhead | 47 | 28 | 42·6 | 29·6 | 36·4 | − 7·2 | 2 | 46 | 1 | 0·17 | − 0·68 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 47 | 13 | 38·7 | 19·3 | 29·4 | − 9·3 | 0 | 88 | 2 | 0·12 | − 1·10 | * | * | * | * |
| | Pembroke | 50 | 26 | 45·0 | 32·0 | 38 8 | − 5·5 | 8 | 39 | 5 | 0·85 | − 0·36 | 6·5 | − 3·5 | 12 | − 9 |
| | Clifton | 43 | 19 | 35·9 | 24·3 | 30·3 | − 9·6 | 0 | 82 | 1 | 0·68 | − 0·02 | * | * | * | * |
| | Arlington (N. Devon) | 45 | 20 | 38·7 | 25·6 | 32·4 | − 7·8 | 0 | 67 | 4 | 0·63 | − 0·71 | * | * | * | * |
| | Cullompton Ⓜ | 45 | 17 | 39·5 | 24·8 | 32·4 | − 7·2 | 0 | 67 | 6 | 1·70 | + 0·91 | 9·0 | + 0·6 | 17 | + 2 |
| | Falmouth | 50 | 32 | 45·3 | 36·6 | 41·1 | − 3·7 | 9 | 22 | 6 | 1·25 | + 0·05 | 10·9 | − 1·6 | 19 | − 4 |
| | Plymouth | 49 | 26 | 43·7 | 35·9 | 40·0 | − 3·1 | 5 | 24 | 5 | 1·26 | + 0·38 | 12·6 | + 1·4 | 23 | + 2 |
| 9. IRELAND, N. | Malin Head | 50 | 32 | 43·1 | 33·4 | 38·4 | − 3·5 | 3 | 32 | 5 | 0·26 | ? | * | * | * | * |
| | Londonderry | 51 | 29 | 43·2 | 35·1 | 39·3 | − 0·7 | 3 | 26 | 4 | 0·64 | − 0·29 | * | * | * | * |
| | Edenfel (Omagh) | 50 | 25 | 41·9 | 30·9 | 36·6 | − 1·3 | 0 | 38 | 3 | 0·85 | + 0·03 | * | * | * | * |
| | Blacksod | 53 | 35 | 47·9 | 39·0 | 43·6 | + 0·5 | 24 | 8 | 6 | 5·53 | ? | * | * | * | * |
| | Markree Castle | 52 | 29 | 44·2 | 34·3 | 39·5 | + 0·1 | 6 | 30 | 6 | 1·07 | + 0·12 | 2·9 | − 5·6 | 6 | −11 |
| | Armagh | 50 | 25 | 42·4 | 33·1 | 37·9 | − 0·8 | 1 | 32 | 3 | 0·35 | − 0·27 | 5·0 | − 3·8 | 10 | − 8 |
| | Donaghadee | 50 | 29 | 44·4 | 35·0 | 39 9 | − 1·7 | 7 | 28 | 4 | 0·58 | − 0·07 | * | * | * | * |
| 10. IRELAND, S. | Dublin | 53 | 31 | 45·9 | 35.9 | 41·1 | − 0·2 | 11 | 25 | 4 | 0·50 | − 0·01 | 9.5 | − 2·7 | 18 | − 6 |
| | Parsonstown | 51 | 29 | 44·9 | 32·3 | 38·9 | − 0·9 | 8 | 38 | 3 | 0·70 | − 0·01 | 6·6 | − 4·4 | 13 | − 8 |
| | Kilkenny | 51 | 27 | 45·0 | 33·6 | 39·5 | − 1·6 | 8 | 33 | 5 | 1·10 | + 0·39 | * | * | * | * |
| | Roche's Point | 52 | 30 | 47·9 | 37.4 | 42·9 | − 1·2 | 26 | 13 | 7 | 3·79 | + 2·62 | * | * | * | * |
| | Valencia | 54 | 32 | 49.9 | 38·9 | 44·6 | − 0·8 | 31 | 9 | 6 | 4·27 | + 2·97 | 5·0 | − 5·0 | 9 | −11 |
| | Killarney | 54 | 28 | 49 1 | 34·6 | 42·1 | − 1·1 | 32 | 21 | 6 | 3·32 | ? | * | * | * | * |
| | Foynes | 53 | 29 | 46·8 | 34·4 | 40·9 | − 1·1 | 13 | 32 | 5 | 2·09 | ? | * | * | * | − |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 54 | 40 | 49·9 | 42·1 | 46·2 | − 0·8 | 29 | 0 | 6 | 2·14 | + 1·24 | 12·8 | ? | 23 | ? |
| | Jersey | 45 | 24 | 39·0 | 30·6 | 35·0 | − 9·1 | 0 | 49 | 2 | 0·35 | − 0·50 | 16·3 | + 2·4 | 29 | + 4 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

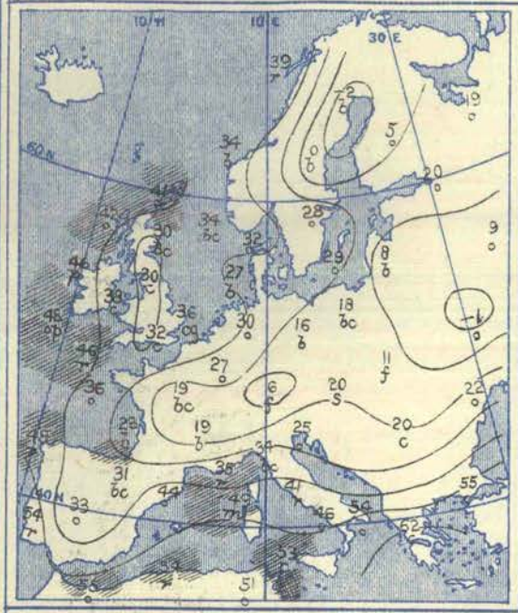
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

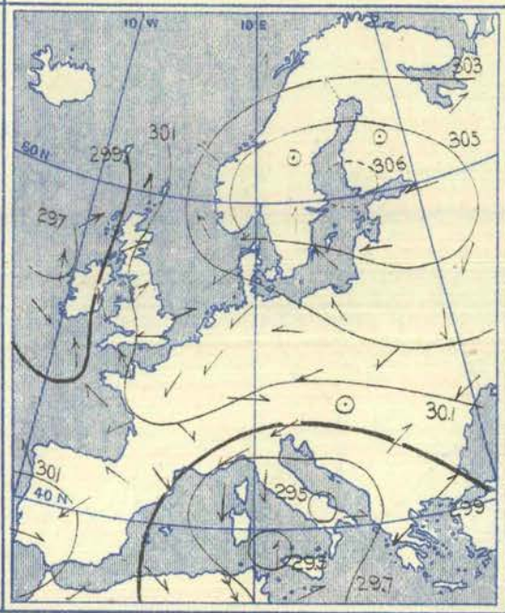
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 10th December.

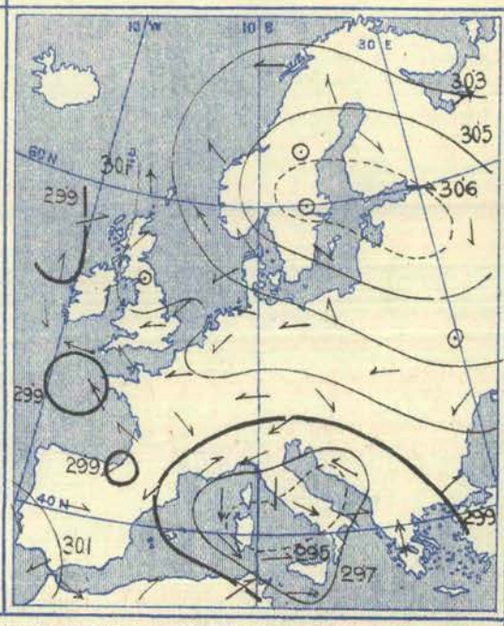
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* fair over the major part of Great Britain and France, and also in the west of Norway; rainy in the west and south of Ireland and the extreme south-west of England. Cloudy over the greater part of the Continent, with rain in Portugal and the extreme south of France, and snow in several parts of Austria, northern Italy and the south of Russia; fine and bright over the Gulf of Bothnia. Rain falling later at many of our own western and extreme northern stations, and snow over eastern and central England.

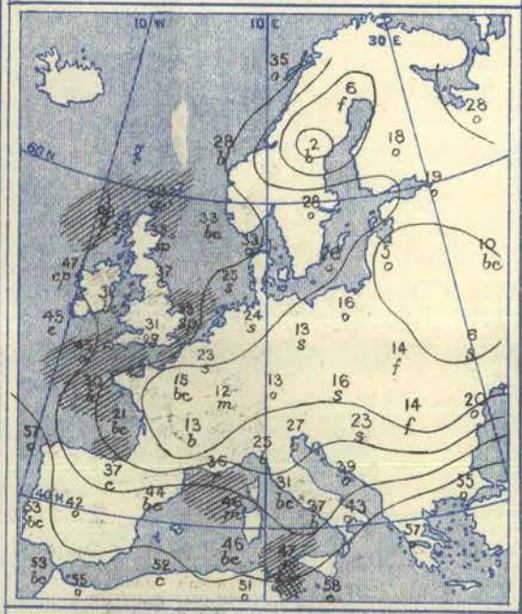
*Temperature* fallen generally, but risen in Ireland and also over northern Russia. Morning readings highest, 62° at Athens, 59° at Patras, and 58° at Malta; above 50° at the Mediterranean stations generally, and very little below it in the south of Ireland. Lowest, (1) −2° Fahr. at Haparanda, 0° zero at Hernösand, and +3° at Helsingfors; (2) −1° at Kiev and +9° at Moscow; (3) 6° at Munich; considerably below the freezing point over the northern, eastern and central parts of the Continent generally, and slightly below it in many parts of Great Britain. Remaining below 32° all day over a considerable part of the Continent, and below 40° in most parts of Great Britain.

*Wind* Southerly in the west and north of our Islands, and strong to a gale in force on our south west coasts; variable in the east and south-east of England; South-Easterly in the west of Norway. Light to moderate from the Eastward or North-Eastward over Denmark, Germany and France; variable over the Spanish Peninsula and the extreme south of France; Westerly or North-Westerly in Italy; variable in Austria; Northerly or North-Easterly in the south of Russia; calm over Finland and the Gulf of Bothnia. Easterly breezes setting in later in the east and south-east of England; no important change occurring elsewhere.

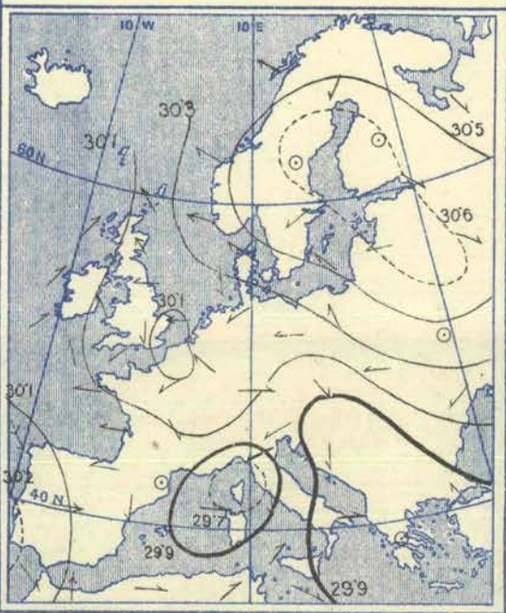
*Barometer* highest, 30·6 ins. and upwards at the mouth of the Gulf of Finland; 30·1 ins. and upwards in an anticyclone covering the whole of northern and central Europe, with the eastern and central parts of Great Britain, and also in another system over the western and central parts of the Spanish Peninsula. Lowest, 29·6 ins. and less in a complex depression over Corsica, Sardinia and central and southern Italy; 29·7 ins. and less in another disturbance off the west of Ireland. Latter disturbance subsequently moving south-eastwards to the mouth of the English Channel.

## Monday, 11th December.

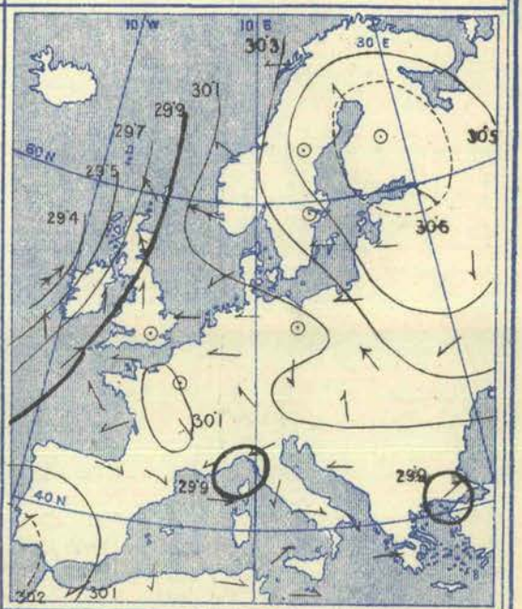
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair or fine over western and southern Europe as a whole, but dull at several of our western and southern stations; snow falling at Aberdeen, Yarmouth, and Dungeness. Fine in the west of Norway, and also over the Gulf of Bothnia, but dull over northern, eastern, and central Europe as a whole, with snow in many places. Heavy rain falling later in the west and extreme north of our Islands, and snow in the eastern and central parts of Great Britain, thunder and lightning occurring at Jersey at night.

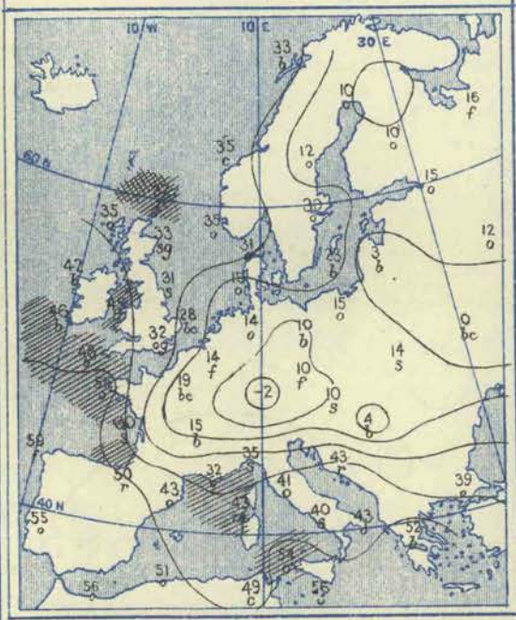
*Temperature* fallen over England, France, Italy, and the greater part of central Europe, changed rather irregularly elsewhere. Morning readings highest, (1) 58° at Malta, 57° at Athens, and 55° at Nemours and Oran; (2) 57° at Corunna. Lowest, (1) −2° Fahr. at Hernösand, and +6° at Haparanda; (2) 6° at Kiev and 7° at Kharkov; below 20° in several parts of Germany and France, and below the freezing point in many parts of Great Britain. Daily maxima below 20° at some of the German stations, below 25° in the east of France, and below 35° over central and south-eastern England; thermometer rising to between 45° and 50° on our western coasts, and to 54° at Valencia (Ireland).

*Wind* Easterly over Denmark, north Germany, the south of Scandinavia, and the greater part of England and France; light or moderate in force in most places but strong at Skudesnes and Cuxhaven. Moderate to fresh from the South-Eastward or Southward in Ireland and Scotland. Light from the Northward or North-Westward over the greater part of Russia and Austria; variable over southern Europe generally. Subsequently increasing to a gale from the Southward on the Irish and Scotch coasts; no decided change occurring elsewhere.

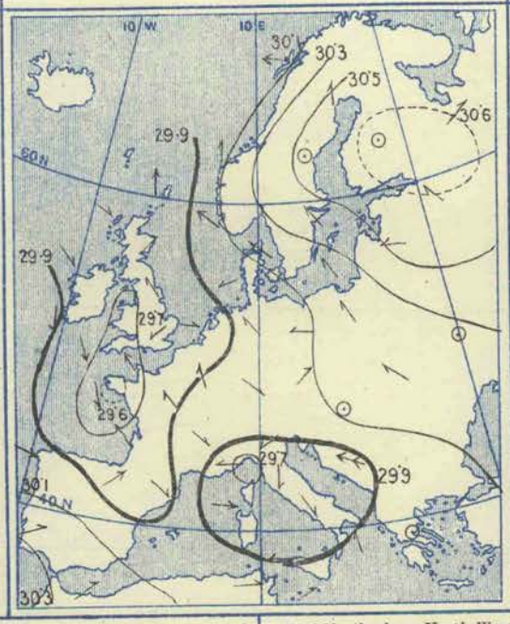
*Barometer* highest, 30·6 ins. and upwards over Finland and the Baltic provinces, 30·1 ins. and upwards in an anticyclone covering the greater part of north-western, northern, and eastern Europe, and also in another system over Portugal. Lowest, 29·8 ins. and less in a depression over Corsica and the Gulf of Genoa; below 30·1 ins. in a very shallow system over the extreme east and south-east of England and the north-east of France. Deep depression appearing later off our extreme western coasts, and barometer falling quickly in Ireland and the west of Scotland.

## Tuesday, 12th December.

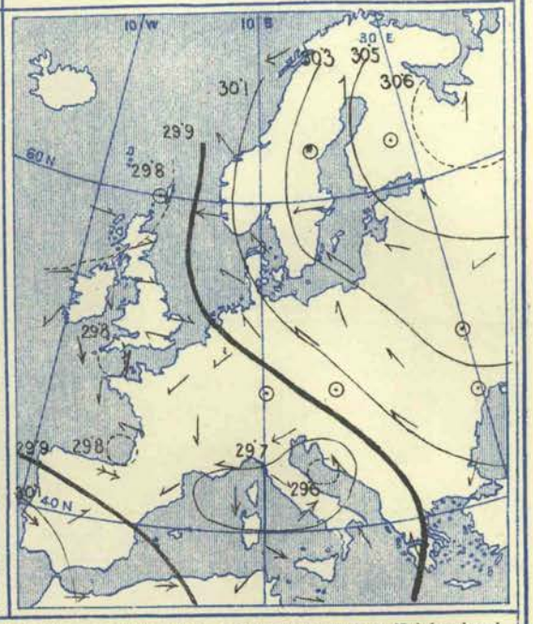
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning cloudy or dull over the greater part of Europe, with snow over central England and the east of Scotland, as well as in several parts of France, Germany and Austria; rain falling at some of the English Channel stations and also in the west of France. Fine in Ireland, as well as in the east of France. Sky clearing later in the north of our Islands, but snow falling in many parts of central Europe and rain in Italy.

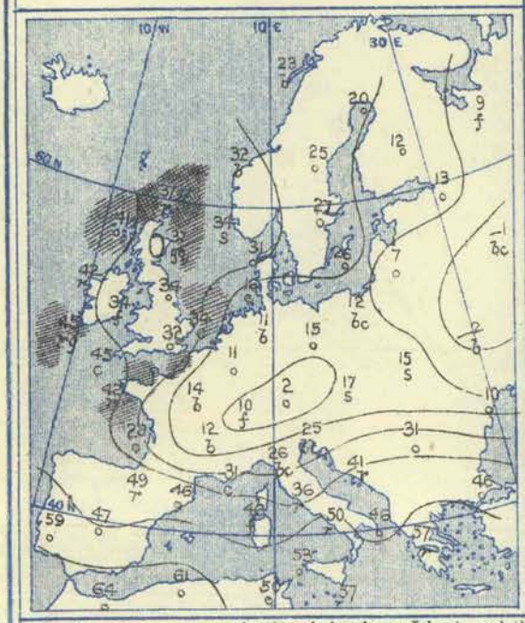
*Temperature* risen in the western and southern parts of Great Britain and also over France and southern Europe, fallen elsewhere. Morning readings highest, 59° at Corunna, 56° at Nemours and Malta, and 55° at San Fernando; above 50° at several of the Mediterranean and Spanish coast stations. Lowest, −2° Fahr. at Munich, 0° zero at Kiev, 3° at Riga and 4° at Buda Pesth, considerably below the freezing point over northern, eastern and central Europe generally, and slightly below it in many parts of the United Kingdom. Daily maxima below 20° in Germany, below 30° in several parts of France and below 40 over Great Britain, but thermometer rising to between 48° and 52° on our own extreme south-west coasts.

*Wind* Northerly or North-Westerly on our western coasts, and strong to a gale at Holyhead and Scilly, Southerly or South-Easterly in the eastern and central parts of Great Britain and also in France, and strong in force at some of the English Channel stations. Easterly or South-Easterly in Scandinavia, Denmark and north Germany; calm in Russia and Austria, variable in Italy; Westerly over the Scandinavian Peninsula. Subsequently becoming rather variable on our own western coasts; no important change occurring elsewhere.

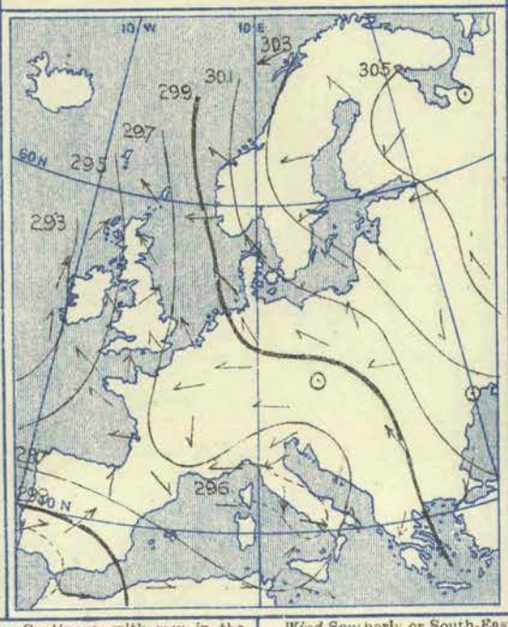
*Barometer* highest, 30·6 ins. and upwards over northern Russia; 30·1 ins. and upwards in an anticyclone covering the whole of northern and eastern Europe, and also in another system extending from the south-westward over Algeria and the southern parts of the Spanish Peninsula. Lowest, 29·6 ins. and less in an elongated depression with its centre over Brittany; 29·7 ins. and less in another disturbance over the Gulf of Genoa. Former depression filling up gradually during day; latter disturbance spreading eastwards over the northern parts of Italy and the Adriatic.

## Wednesday, 13th December.

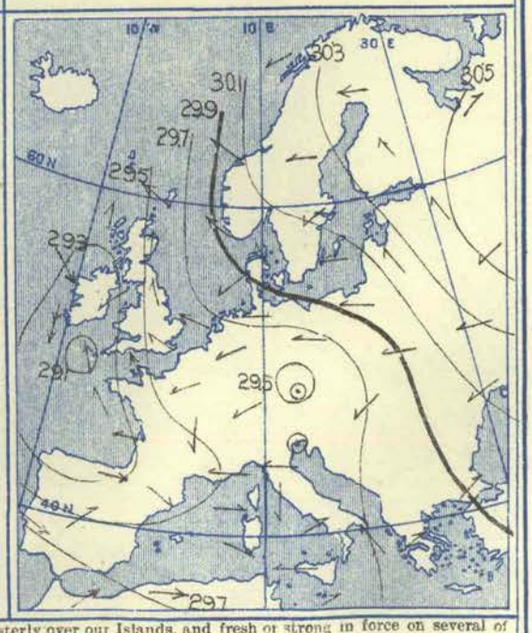
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* cloudy over nearly the whole of our Islands and the Continent, with rain in the west of Ireland and the south-west of England as well as in many parts of Italy and Greece. Snow falling over eastern and central England, and also at several of the Austrian stations. Fine in the east of Scotland and the west of Norway, as well as over central France. Heavy rain falling later in the south of Ireland and the south-west of France, and snow showers in several parts of Great Britain.

*Temperature* fallen generally, but risen in the eastern parts of Great Britain and also in Austria and the Gulf of Bothnia. Morning readings highest, 61° to 64° over Algeria, 59° at Lisbon, and 57° at Athens and Malta. Lowest, (1) −2° Fahr. at Kiev, and −1° at Moscow; (2) 2° at Munich and 4° at Breslau, below 20° in most parts of central and eastern Europe, below the freezing point in Scotland. Daily maxima below 35° in the eastern, central, and south-eastern parts of Great Britain, below 25° over central France, and below 20° in Germany. Hard frost occurring over central England at night; sheltered thermometer at Loughborough falling to 8°.

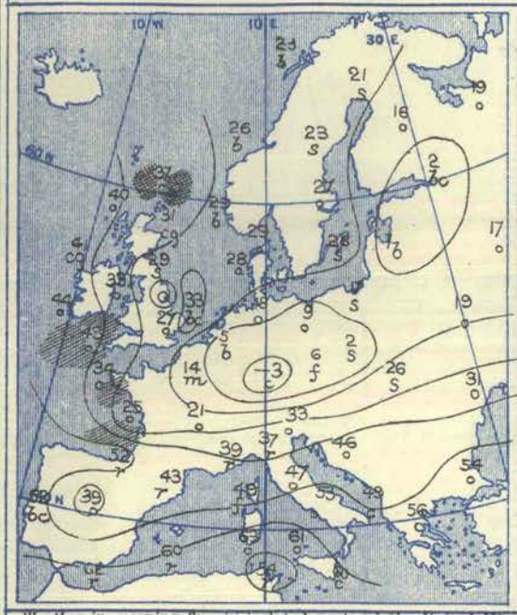
*Wind* Southerly or South-Easterly over our Islands, and fresh or strong in force on several of the more exposed parts of our coasts. Easterly over France and the northern and central parts of the Continent, and strong in force in the south of Norway. Westerly or South-Westerly over the Spanish Peninsula. North Westerly in the extreme south of France; variable in Italy and Greece. Subsequently shifting to the Northward in the west of Ireland and increasing to a gale. No important change occurring elsewhere.

*Barometer* highest, 30·5 ins. and upwards over northern and central Russia; 30·1 ins. and upwards in an anticyclone covering the whole of northern and central Europe, 30·0 ins. and upwards over the southern parts of the Spanish Peninsula. Lowest, 29·3 ins. and less in a depression off the west of Ireland, 29·6 ins. and less in another disturbance over Corsica and central Italy. Depression in west subsequently moving quickly across our south-west coasts, and barometer rising briskly in Ireland.

## Thursday, 14th December.

### Temperature and Weather.

8 a.m.

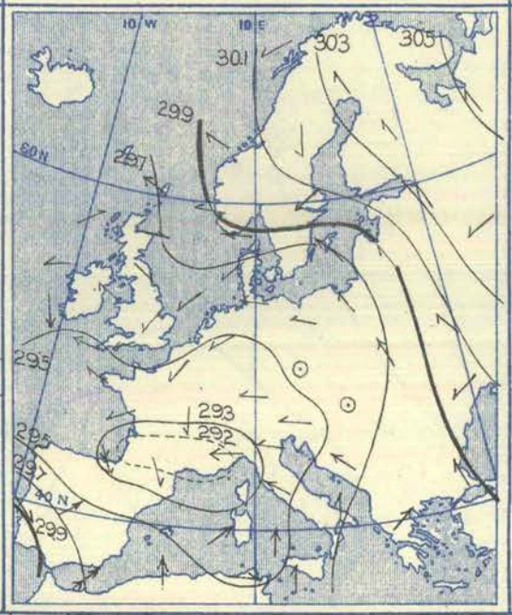


*Weather* in morning fine in isolated parts of the United Kingdom and also in the west of Norway, but dull and unsettled over Europe as a whole. Snow falling in many parts of Finland, Sweden, Germany and Austria, and rain over northern Italy and the extreme south of France. Snow showers falling later in several parts of Great Britain, and rain in the south of Ireland, but sky clearing in France. Heavy rain reported in Italy and the north of Spain—as much as 2·4 ins. at Florence and Bilbao.

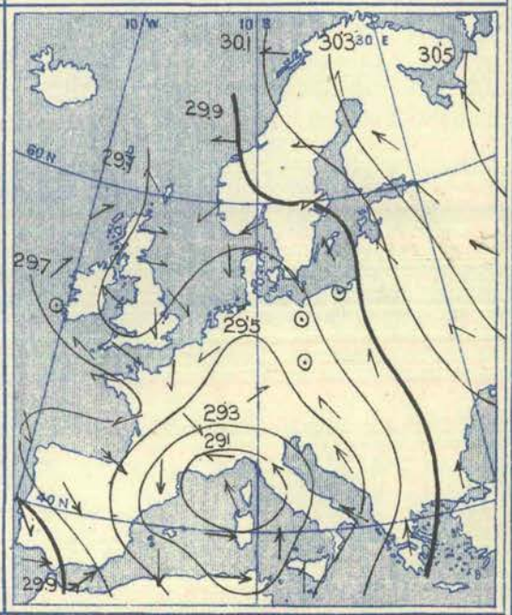
*Temperature* fallen in most countries, but risen in France and Italy. Morning readings highest, 65° at Cagliari, 62° at Oran, and 61° at Palermo; above 50° at many of the Mediterranean and Spanish coast stations. Lowest, (1) −8° Fahr. at Munich, +2° at Breslau, and 5° at Vienna and Brussels; (2) 9° at Loughborough; considerably below the freezing point over the whole of northern and central Europe, and also in the central parts of Great Britain. Remaining below 20° all day in Germany and the east of France, and below 32° in many parts of Great Britain. Thermometer exceeding 40° on our extreme west and south-west coasts.

### Barometer and Wind.

8 a.m.



6 p.m.



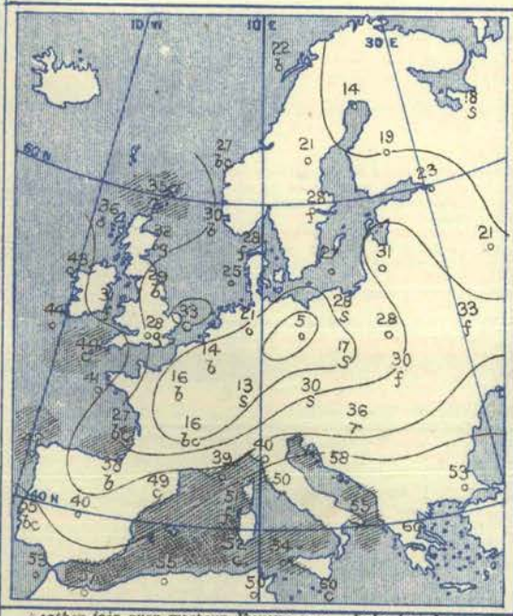
*Wind* Easterly or North-Easterly over the southern parts of England and the western and central parts of the Continent generally, and strong in force in Denmark and the south of Scandinavia; Northerly in the south of Ireland. Moderate from the Southward or South-Eastward on our extreme north and north-west coasts. Westerly or North-Westerly over the Spanish Peninsula and the south-west of France, with a gale at Bilbao. Southerly over the south of Italy, Easterly over the northern parts of Italy and the Adriatic. Calm in Austria, South-Easterly in Russia. No important change occurring later.

*Barometer* highest, 30·3 ins. and upwards in an anticyclone lying over northern and central Russia; 29·9 ins. and upwards in the south of Portugal. Lowest, 29·2 ins. and less in an elongated depression lying over the south of France; secondary disturbances reported over various parts of central Europe. Depression subsequently moving eastwards: secondary system spreading northwards over Denmark and the Baltic.

## Friday, 15th December.

### Temperature and Weather.

8 a.m.

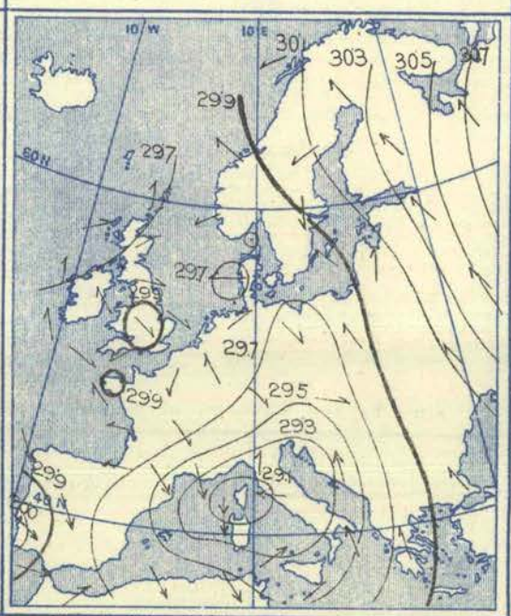


*Weather* fair over western Europe as a whole, but foggy at many of the English and Irish stations; dull in the north of Scotland, with rain at Sumburgh Head; dull in the eastern, central, and southern parts of Europe generally, with rain at some of the Austrian and Italian stations, and snow in Finland, the south of Scandinavia, and several parts of Germany and Austria. Rain falling later in the west and extreme north of our Islands, and a considerable quantity in Austria, as much as 3·2 ins. at Buda-Pesth.

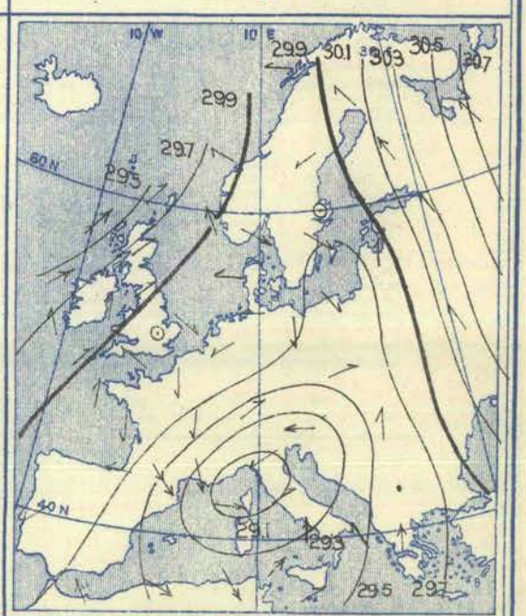
*Temperature* risen somewhat in many parts of Great Britain and France, and rapidly over Russia, Austria, and eastern Germany. Morning readings highest, 60° at Athens and Malta, 58° at Lesina, and 57° at Patras and Nemours; above 50° at most of the Mediterranean stations. Lowest, 5° at Berlin and Swinemunde, 10° at Belfort, and 13° at Munich, considerably below the freezing point over northern and central Europe generally, and also over the greater part of England. Remaining below the freezing point all day at several of the English stations, but rising briskly in Ireland and touching 50° in some places.

### Barometer and Wind.

8 a.m.



6 p.m.

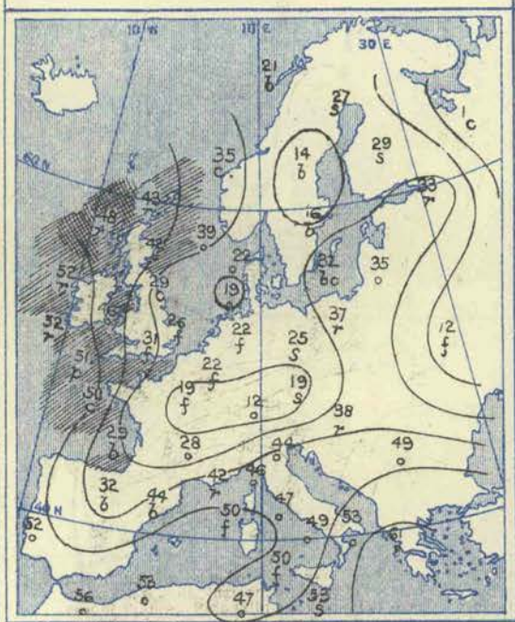


*Wind* light and variable in the south of our Islands, but Southerly or South-Westerly on our extreme western and northern coasts, and North-Westerly on the east coast of England. Easterly in the west of France, North-Westerly in the central and southern parts of that country and also over the Spanish Peninsula, Southerly to Easterly over Italy and the Adriatic, with a gale at Lesina. Variable in Germany and Austria, South-Easterly over Russia, Easterly or North-Easterly in Scandinavia. Subsequently increasing from the Southward on our extreme western coasts, and blowing a gale in the Hebrides.

*Barometer* highest, 30·7 ins. and more over northern Russia; 29·9 ins. and upwards in an anticyclone covering nearly the whole of Russia and Scandinavia, and also in smaller systems lying respectively over central England and over Brittany. Lowest, 29·1 ins. and less in a rather deep depression with its centre over Corsica and the Italian coasts. Barometer falling later in the west and north of our Islands, and large depression appearing off the west of Scotland.

## Saturday, 16th December.

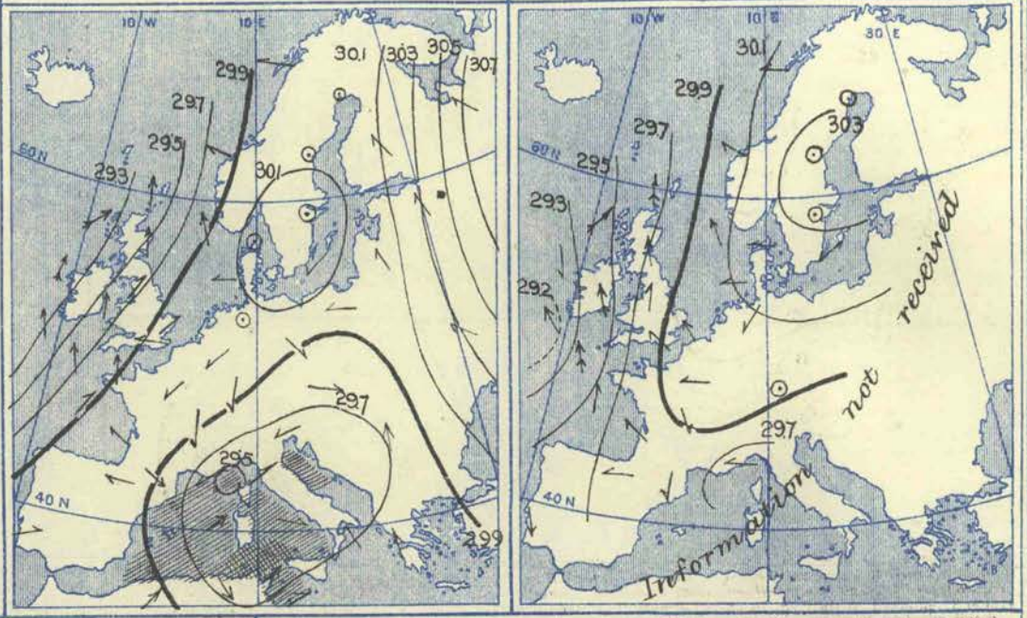
### Temperature and Weather. 8 a.m.



*Weather* in morning cloudy or dull over our Islands and the Continent as a whole, with fog in the south-east of England, and also over the Netherlands, north Germany and the north-east of France. Rain falling at several of our own western and extreme northern stations, as well as in some parts of northern Italy and the south of France, and snow in many parts of Germany and Finland. Fine at several of the Scandinavian stations and also in the south-west of France. Very heavy rain falling later in the west of Ireland—as much as 3·3 ins. at Blacksod Point.

*Temperature* risen over western and central Europe—quickly at our own western stations and also in north Germany. Morning readings highest, 61° at Athens and Patras, 56° at Nemours, and 55° at Oran; above 50° at several of the Mediterranean stations, and also on our own extreme west and south-west coasts. Lowest, 1° at Archangel, 12° at Kiev, and 14° at Hernösand; (2) 12° at Munich, 17° at Belfort, and 19° at Paris and Prague. Rising during day to 50° and upwards at several of our western and extreme northern stations. Sharp frost occurring over the eastern and central parts of England at night.

### Barometer and Wind. 8 a.m. and 6 p.m.




*Wind* Southerly in our Islands, and strong to a gale in force in the west and extreme north. South-Easterly or Easterly in the west of Norway. Light from between North and East over the greater part of France; moderate from the Westward or North-Westward in Germany and Austria; South-Easterly in Russia; calm in the Gulf of Bothnia; Easterly or North-Easterly over Denmark and the Baltic; variable in Italy and the Spanish Peninsula. Subsequently shifting to the Northward on the west coasts of Ireland.

*Barometer* highest, 30·7 ins. and upwards over northern Russia; 30·0 ins. and upwards in an anticyclone covering the whole of northern and eastern Europe, and extending in the form of a long band across the Netherlands and northern and central France. Lowest, 29·3 ins. and less in a large depression lying off our own extreme west and north-west coasts. 29·6 ins. and less in a complex disturbance lying over the Gulf of Genoa, Corsica, and the northern parts of Italy and the Adriatic. Depression off our western coast subsequently moving southwards. Barometer rising in the north of our Islands and also in Scandinavia.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: = a heavy gale = a gale; = a fresh to strong breeze; = a light to moderate breeze; and = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

## GENERAL NOTES.

During the greater part of last week the barometer was highest over northern Europe, but also high over and to the south-westward of the Spanish Peninsula. The former system occasionally spread over the central countries and also over a considerable portion of our own Islands, the weather at those times being dry and very cold with severe frost in many places. In France and Germany the frost was hard and continuous, and even over Great Britain some very low temperatures were registered, especially on the nights of the 13th and 14th, the thermometer on the former occasion falling to a minimum of 8° at Loughborough.

Over the western countries as a whole the influence of the northern anticyclone was, however, interrupted at times by depressions which appeared in the first case off the Irish coasts, and which afterwards moved south-eastwards or southwards to the Bay of Biscay and Spain, and in one instance (on the 14th) to the Mediterranean. As these disturbances approached the wind rose to a gale from the Southward on many parts of our western and northern coasts, with rain in Ireland and snow in many parts of Great Britain and France, while in their rear the wind shifted suddenly to the Northward in the west and gradually subsided. The depression which appeared off our western coasts on the 16th occasioned very heavy rain in the west of Ireland (as much as 3·3 ins. at Blacksod Point) and a temporary change to milder weather over the whole Kingdom. At the close of the week, however, frost was again setting in in most districts.

Over southern Europe the weather was rendered very unsettled, firstly by some shallow depressions which were formed over Italy and the Mediterranean, and secondly by the disturbance of the 14th, the latter system developing a large amount of intensity during its passage across Italy. Heavy rain fell at frequent intervals in Italy and occasionally in Spain also, while on the 15th heavy snowstorms occurred in Austria.

## BRIGHT SUNSHINE Values for the Week, in addition to those found on page 296.

| STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 5·7 | ? | 14 | ? | WATERGATE (Emsworth) | 13·5 | ? | 25 | ? |
| STRATHPEFFER SPA | 14·6 | + 6·8 | 31 | + 15 | BRIGHTON | 13·2 | + 2·2 | 24 | + 3 |
| EDINBURGH | 4·2 | - 1·8 | 9 | - 3 | WORTHING | 20·9 | ? | 39 | ? |
| MORPETH | | ? | | ? | BOGNOR | 13·3* | ? | 25* | ? |
| NEWCASTLE-ON-TYNE | 1·3 | ? | 3 | ? | EASTBOURNE | 19·4 | + 7·4 | 36 | +13 |
| OSWALDKIRK (Yorkshire) | 7·0 | - 1·4 | 14 | - 2 | VENTNOR HOSPITAL | 11·6 | ? | 21 | ? |
| YORK | 0·5 | - 4·5 | 1 | - 11 | SOUTHPORT | 11·7 | ? | 28 | ? |
| LOWESTOFT | 14·9 | ? | 28 | ? | COLWYN BAY | 20·6 | ? | 40 | ? |
| HOLLESLEY BAY | 13.3 | ? | 25 | ? | RHYL | 18·4* | ? | 35* | ? |
| SHEFFIELD | 3·4 | ? | 7 | ? | ABERDOVEY | 22·5* | ? | 43* | ? |
| WORKSOP | 5·7 | - 2·1 | 11 | - 4 | TENBY | 12·7 | + 2·4 | 24 | + 4 |
| THURCASTON (Leicestershire) | 7·2 | + 0·5 | 15 | + 1 | NEWQUAY | | | | |
| MARGATE | 7·1 | - 4·0 | 13 | - 7 | TORQUAY | 15·1 | + 5·4 | 27 | + 5 |
| WESTBOURNE (Emsworth) | 13·3* | + 2·2 | 25* | + 5 | GUERNSEY | 4·8* | - 5·4 | 8* | - 10 |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C. ; JOHN MENZIES & Co., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & Co., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. No. 51.] *Third Series.* WEEK ENDING SATURDAY, DECEMBER 23RD, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 302.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 50 | 22 | 42·7 | 33·3 | 38·2 | 1 above | 2 | − 5 | 32 | + 2 | 2369 | +400 | 750 | − 57 |
| | 1. SCOTLAND, EAST | 43 | 19 | 38·1 | 31·1 | 34·7 | 2 below | 0 | − 6 | 51 | +13 | 2586 | +230 | 900 | + 22 |
| | 2. ENGLAND, N.E. | 44 | 19 | 38·6 | 32·2 | 35·5 | 3 below | 0 | − 8 | 46 | +14 | 2918 | +348 | 629 | − 75 |
| | 3. ENGLAND, EAST | 42 | 25 | 38·8 | 32·6 | 35·8 | 2 below | 0 | − 9 | 43 | + 6 | 3368 | +399 | 633 | −165 |
| | 4. MIDLAND COUNTIES | 45 | 23 | 36·6 | 31·0 | 34·0 | 3 below | 0 | −10 | 56 | +19 | 3334 | +392 | 748 | − 72 |
| | 5. ENGLAND, SOUTH | 48 | 22 | 39·9 | 32·2 | 36·2 | 3 below | 0 | −15 | 41 | +14 | 3805 | +538 | 433 | −156 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 47 | 25 | 41·1 | 34·7 | 38·1 | 1 below | 0 | −12 | 27 | + 3 | 2775 | +261 | 525 | − 80 |
| | 7. ENGLAND, N.W. | 46 | 24 | 38·8 | 32·2 | 35·7 | 4 below | 0 | −12 | 44 | +19 | 3169 | +413 | 456 | −119 |
| | 8. ENGLAND, S.W. | 50 | 25 | 42·8 | 35·4 | 39·3 | 2 below | 2 | −17 | 25 | + 7 | 3687 | +585 | 326 | −109 |
| | 9. IRELAND, NORTH | 51 | 25 | 44·4 | 36·6 | 40·7 | 1 above | 7 | − 6 | 22 | − 1 | 3017 | +371 | 380 | −141 |
| | 10. IRELAND, SOUTH | 53 | 26 | 47·3 | 40·5 | 44·0 | 2 above | 20 | − 1 | 4 | −14 | 3549 | +503 | 282 | −115 |
| | —CHANNEL ISLANDS— | 56 | 26 | 47·8 | 38·6 | 43·4 | 2 below | 24 | − 7 | 10 | + 5 | 4483 | +859 | 113 | − 51 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 302.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | | 5 | 8 less | 227 | −13 | 51·8 | + 2·7 | 3 | − 1 | 6 | − 3 | 1207 | +141 | 27 | + 3 |
| | 1. SCOTLAND, EAST | 4 | 7 | 0 (average) | 195 | 0 | 32·3 | + 0·9 | 0 | − 7 | 0 | −14 | 1332 | + 64 | 31 | + 2 |
| | 2. ENGLAND, N.E. | 5 | 6 | 1 more | 170 | −14 | 23·6 | − 2·5 | 0 | − 8 | 0 | −15 | 1341* | +103 | 31 | + 2 |
| | 3. ENGLAND, EAST | 4 | 2 | 3 less | 153 | −28 | 22·0 | − 3·7 | 1 | − 9 | 2 | −17 | 1850 | +267 | 41 | + 6 |
| | 4. MIDLAND COUNTIES | 3 | 3 | 3 less | 149 | −28 | 24·7 | − 3·2 | 1 | − 7 | 1 | −15 | 1615 | +299 | 38 | + 7 |
| | 5. ENGLAND, SOUTH | 4 | 2 | 4 less | 131 | −41 | 23·9 | − 4·9 | 3 | − 7 | 6 | −13 | 1971 | +355 | 45 | + 8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 5 | 10 | 3 less | 215 | +10 | 50·7 | − 0·1 | 0 | − 7 | 0 | −13 | 1340 | + 5 | 31 | 0 |
| | 7. ENGLAND, N.W. | 2 | 3 | 5 less | 182 | −11 | 34·4 | − 0·3 | 3 | − 3 | 6 | − 6 | 1598 | +262 | 37 | + 6 |
| | 8. ENGLAND, S.W. | 4 | 4 | 6 less | 169 | −27 | 36·4 | − 3·6 | 2 | − 9 | 4 | −17 | 1893* | +255 | 44 | + 6 |
| | 9. IRELAND, NORTH | 5 | 11 | 3 more | 222 | − 1 | 37·0 | + 0·4 | 5 | − 3 | 11 | − 5 | 1396 | +137 | 32 | + 3 |
| | 10. IRELAND, SOUTH | 6 | 22 | 13 more | 186 | −16 | 41·4 | + 3·1 | 3 | − 8 | 6 | −15 | 1597 | +165 | 37 | + 4 |
| | — CHANNEL ISLANDS— | 5 | 7 | 2 less | 162 | −47 | 27·6 | − 5·7 | 3 | − 9 | 5 | −17 | 2107 | +294 | 50 | + 7 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was very dull and gloomy in all parts of the Kingdom. Slight rain and fog were frequently experienced in the south and south-east, and cold rain or sleet in the north. Over the south and west of Ireland rain fell almost daily and was at times very heavy.

*Temperature* was a few degrees below the mean generally, but slightly above it in Scotland N. and over Ireland. The highest of the maxima occurred at the end of the week over England, but some days earlier in Ireland and Scotland. They ranged from 56° in the Channel Islands, 53° in Ireland S. and 50° in England S.W. and Scotland N. to 43° in Scotland E. and 42° in England E. The lowest of the minima, which were recorded either during the early days of the week, or towards its close, varied from 19° in Scotland E. and England N.E., and 22° in Scotland N. and England S. to 26° in Ireland S. and the Channel Islands. The diurnal range was very slight generally, especially over England.

*Rainfall* was less than the mean in most districts, but just equal to it in Scotland E., and more than the normal in England N.E. and over Ireland. In Ireland S. the excess was very large.

*Bright Sunshine* was very deficient everywhere and in some of the northern districts was altogether absent.

*Barometer and Wind.*—The distribution of barometric pressure was very similar to that prevailing during the preceding week, an anticyclone extending from Scandinavia over the north eastern and eastern parts of our Islands, while depressions appeared at times both in the south-west and north-west. Light Easterly winds were mainly prevalent in the south and south-east and varying South-Easterly winds in the west and north. The latter, though moderate as a whole, occasionally increased to a strong breeze or moderate gale.

207 | 90 Wy. & S., Ltd.
319 | 70 12 | 99.

* This value has been altered owing to the receipt of further information for a preceding week.

# II.—DATA from which the SUMMARY on page 301 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. | | | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). | | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | | | Of Highest each day. | Of Lowest each day. | For whole of each day. | | Above 42° F | Below 42° F. | | | | | | | |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 45 | 36 | 43·4 | 38·3 | 41·0 | + 2·9 | 4 | 15 | 6 | 0·59 | − 0·38 | * | * | * | * |
| | Stornoway | 47 | 34 | 44·6 | 37·3 | 41·1 | + 2·2 | 7 | 19 | 6 | 0·56 | − 0·72 | 0·0 | − 5·8 | 0 | −13 |
| | Wick | 45 | 33 | 43·3 | 38·0 | 40·8 | + 3·6 | 4 | 16 | 5 | 0·58 | − 0·12 | * | * | * | * |
| | Lairg Ⓢ | 44 | 22 | 39·6 | 28·3 | 34·2 | − 2·1 | 0 | 55 | 3 | 0·53 | − 0·37 | * | * | * | * |
| | Glencarron Ⓢ | 50 | 22 | 40·9 | 28·0 | 34·7 | − 1·8 | 0 | 51 | 3 | 0·55 | − 1·66 | * | * | * | * |
| | Fort Augustus Ⓢ | 50 | 24 | 43·3 | 29·9 | 36·9 | − 0·9 | 4 | 45 | 4 | 0·09 | − 1·03 | 4·4 | + 2·8 | 10 | + 6 |
| | Fort William Ⓢ | 48 | 29 | 43·8 | 33·2 | 38·7 | − 0·2 | 5 | 33 | 3 | 0·84 | − 1·28 | 3·7 | + 1·2 | 8 | + 2 |
| 1. SCOTLAND E. | Nairn | 43 | 22 | 40·1 | 29·9 | 35·2 | − 2·1 | 0 | 48 | 4 | 0·59 | + 0·17 | * | * | * | * |
| | Aberdeen | 43 | 28 | 40·6 | 36·3 | 38·5 | + 1·2 | 0 | 25 | 7 | 1·40 | + 0·73 | 0·0 | − 9·0 | 0 | −20 |
| | Braemar Ⓢ | 40 | 19 | 36·0 | 28·1 | 32·2 | − 2·0 | 0 | 69 | 5 | 0·48 | − 0·20 | 0·0† | − 4·8† | 0† | −10 |
| | Ochtertyre Ⓢ | 38 | 22 | 36·0 | 29·3 | 32·8 | − 3·7 | 0 | 64 | 3 | 0·96 | + 0·01 | * | * | * | * |
| | Leith Ⓢ | 43 | 28 | 39·7 | 32·7 | 36·3 | − 2·6 | 0 | 40 | 3 | 0·31 | − 0·09 | * | * | * | * |
| | Marchmont Ⓢ | 39 | 24 | 36·4 | 30·0 | 33·3 | − 2·9 | 0 | 61 | 2 | 0·19 | − 0·48 | 0·3 | − 7·2 | 1 | −15 |
| 2. ENGLAND, N.E. | Alnwick Castle | 39 | 19 | 37·1 | 29·7 | 33·5 | − 4·4 | 0 | 60 | 6 | 0·70 | + 0·03 | * | * | * | * |
| | Durham | 37 | 24 | 35·6 | 30·7 | 33·3 | − 3·4 | 0 | 61 | 6 | 0·67 | + 0·06 | 0·3 | − 9·7 | 1 | −19 |
| | Shields | 43 | 27 | 40·0 | 33·1 | 36·7 | − 1·8 | 0 | 37 | 6 | 0·76 | + 0·26 | * | * | * | * |
| | Scarborough Ⓜ | | | | | | | | | | | | | | | |
| | Spurn Head | 44 | 33 | ?41·6 | 35·4 | ?38·6 | ?− 0·3 | 0 | ?24 | 3 | 0·36 | − 0·08 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 41 | 28 | 37·6 | 32·1 | 35·0 | − 1·8 | 0 | 49 | 6 | 0·26 | − 0·28 | 1·0 | − 8·3 | 2 | −16 |
| | Yarmouth | 42 | 26 | 40·4 | 32·7 | 36·7 | − 1·3 | 0 | 37 | 2 | 0·17 | − 0·40 | * | * | * | * |
| | Geldeston | 42 | 30 | 39·4 | 33·5 | 36·6 | − 1·5 | 0 | 38 | 3 | 0·17 | − 0·30 | 0·7 | −10·3 | 1 | −20 |
| | Cambridge | 41 | 26 | 38·2 | 31·8 | 35·1 | − 2·1 | 0 | 48 | 3 | 0·12 | − 0·28 | 0·8 | − 8·5 | 2 | −16 |
| | Felixstowe | 42 | 30 | 39·8 | 34·5 | 37·3 | − 1·4 | 0 | 33 | 3 | 0·21 | ? | 1·3† | ? | 2† | ? |
| | Rothamsted | 41 | 25 | 37·3 | 30·8 | 34·2 | − 3·2 | 0 | 55 | 5 | 0·11 | − 0·44 | 0·0 | − 9·8 | 0 | −18 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 42 | 25 | 36·1 | 30·9 | 33·6 | − 3·4 | 0 | 59 | 3 | 0·36 | − 0·13 | * | * | * | * |
| | Loughborough | 42 | 25 | 36·9 | 31·4 | 34·3 | − 3·3 | 0 | 54 | 3 | 0·28 | − 0·23 | * | * | * | * |
| | Stamford (Ketton) | 42 | 25 | 36·6 | 31·1 | 34·0 | − 2·6 | 0 | 56 | 4 | 0·21 | − 0·27 | * | * | * | * |
| | Cheadle Ⓜ | 38 | 26 | 35·2 | 31·0 | 33·2 | − 3·5 | 0 | 62 | 3 | 0·39 | − 0·32 | * | * | * | * |
| | Shirley (near Solihull) | 42 | 23 | 36·7 | 30·6 | 33·8 | − 2·9 | 0 | 57 | 3 | 0·17 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 40 | 26 | 36·1 | 31·9 | 34·1 | − 3·8 | 0 | 55 | 5 | 0·76 | + 0·06 | 0·4 | − 8·1 | 1 | −16 |
| | Hereford (Belmont) Ⓜ | 43 | 25 | 37·0 | 30·7 | 34·0 | − 4·2 | 0 | 56 | 2 | 0·18 | − 0·33 | * | * | * | * |
| | Cirencester | 40 | 23 | 37·1 | 31·1 | 34·2 | − 3·0 | 0 | 55 | 2 | 0·14 | − 0·48 | 1·8 | − 7·7 | 3 | −15 |
| | Oxford | 45 | 25 | 38·0 | 30·7 | 34·5 | − 3·7 | 0 | 53 | 4 | 0·08 | − 0·36 | 0·0 | − 9·6 | 0 | −18 |
| 5. ENGLAND, S. | London | 41 | 25 | 38·9 | 31·0 | 35·1 | − 3·9 | 0 | 48 | 5 | 0·21 | − 0·29 | 0·0† | − 4·8† | 0† | − 9† |
| | Cranley Ⓜ | | | | | | | | | | | | * | * | * | * |
| | Dungeness | 44 | 25 | ?40·0 | 32·3 | ?36·3 | ?− 3·8 | 0 | ?40 | 1 | 0·07 | − 0·53 | * | * | * | * |
| | Hastings (St. Leonards) | 41 | 26 | 38·7 | 32·3 | 35·6 | − 5·0 | 0 | 45 | 2 | 0·14 | − 0·51 | 11·6 | − 1·4 | 21 | − 3 |
| | Southampton | 43 | 27 | 40·5 | 33·4 | 37·1 | − 3·0 | 0 | 34 | 5 | 0·15 | − 0·57 | 0·0 | −11·2 | 0 | −21 |
| | Portland Bill | 48 | 30 | 44·3 | 35·6 | 40·1 | − 1.0 | 6 | 25 | 5 | 0·53 | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 46 | 22 | 37·0 | 28·8 | 33·1 | − 3·1 | 0 | 62 | 7 | 0·23 | − 0·45 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 47 | 33 | 43·4 | 35·9 | 39·8 | − 0·3 | 4 | 23 | 5 | 0·97 | − 1·05 | * | * | * | * |
| | Glasgow | 42 | 31 | 39·8 | 34·2 | 37·1 | − 1·3 | 0 | 34 | 4 | 0·83 | − 0·07 | 0·0 | − 4·0 | 0 | − 8 |
| | Glenlee Ⓢ | 41 | 25 | 38·1 | 31·8 | 35·1 | − 2·3 | 0 | 48 | 6 | 1·27 | − 0·15 | * | * | * | * |
| | Douglas (Isle of Man) | 47 | 33 | 43·2 | 36·9 | 40·2 | − 0·9 | 3 | 20 | 4 | 1·05 | − 0·01 | 0·0 | − 9·4 | 0 | −18 |
| 7. ENGLAND, N.W. | Newton Reigny | 39 | 25 | 36·3 | 30·4 | 33·5 | − 2·7 | 0 | 60 | 2 | 0·10 | ? | 0·6 | ? | 1 | ? |
| | Stonyhurst | 38 | 30 | 37·4 | 32·6 | 35·1 | − 2·6 | 0 | 48 | 3 | 0·44 | − 0·62 | 0·8 | − 5·5 | 2 | −10 |
| | Blackpool Ⓜ | 45 | 26 | 38·7 | 31·6 | 35·3 | − 3·7 | 0 | 47 | 0 | — | − 0·70 | 0·4 | − 5·4 | 1 | 10 |
| | Manchester (Prestwich) | 39 | 24 | 37·7 | 30·5 | 34·2 | − 3·3 | 0 | 55 | 4 | 0·57 | − 0·24 | 0·0 | ? | 0 | ? |
| | Liverpool Obsy. (Bidston) | 44 | 28 | 38·3 | 32·0 | 35·3 | − 4·6 | 0 | 47 | 2 | 0·30 | − 0·28 | 0·1 | ? | 0 | ? |
| | Llandudno Ⓜ | 46 | 29 | 41·3 | 34·2 | 37·9 | − 3·9 | 0 | 29 | 3 | 0·11 | − 0·59 | 8·0 | + 1·0 | 16 | + 3 |
| | Holyhead | 46 | 30 | 41·9 | 34·3 | 38·3 | − 4·6 | 0 | 26 | 3 | 0·74 | − 0·11 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 47 | 25 | 40·4 | 29·9 | 35·4 | − 2·8 | 0 | 46 | 3 | 0·28 | − 0·95 | * | * | * | * |
| | Pembroke | 50 | 29 | 44·6 | ? 37·1 | ? 41·0 | ?− 2·5 | ? 7 | ? 20 | 5 | 0·30 | − 0·60 | 1·7 | − 8·7 | 3 | −17 |
| | Clifton | 47 | 26 | 38·8 | 32·1 | 35·6 | − 3·6 | 0 | 45 | 4 | 0·16 | − 0·54 | * | * | * | * |
| | Arlington (N. Devon) | 47 | 29 | 41·7 | 33·3 | 37·7 | − 2·2 | 0 | 30 | 3 | 0·32 | − 0·98 | * | * | * | * |
| | Cullompton Ⓜ | 47 | 29 | 40·6 | 33·6 | 37·2 | − 1·2 | 0 | 34 | 2 | 0·40 | − 0·40 | 0·9 | − 7·9 | 2 | −14 |
| | Falmouth | 50 | 35 | 47·5 | 42·6 | 45·2 | + 1·3 | 22 | 0 | 5 | 1·05 | − 0·15 | 3·6 | − 9·2 | 7 | −16 |
| | Plymouth | 49 | 25 | 46·1 | 39·2 | 42·8 | + 0·5 | 17 | 8 | 4 | 0·48 | − 0·37 | 3·2 | − 8·5 | 6 | −15 |
| 9. IRELAND, N. | Malin Head | 45 | 31 | 43·0 | 35·6 | 39·5 | − 2·2 | 3 | 25 | 3 | 0·16 | ? | * | * | * | * |
| | Londonderry | 47 | 30 | 45·3 | 35·8 | 40·7 | + 1·1 | 9 | 25 | 5 | 1·09 | + 0·17 | * | * | * | * |
| | Edenfel (Omagh) | 44 | 26 | 42·6 | 34·3 | 38·6 | + 1·3 | 2 | 28 | 3 | 1·18 | − 0·35 | * | * | * | * |
| | Blacksod | 49 | 36 | 46·7 | 40·6 | 43·8 | + 0·6 | 18 | 4 | 5 | 1·57 | ? | * | * | * | * |
| | Markree Castle | 51 | 25 | 44·6 | 34·6 | 39·8 | + 0·8 | 7 | 29 | 5 | 1·76 | + 0·80 | 5·1 | − 2·9 | 10 | − 5 |
| | Armagh | 49 | 30 | 44·6 | 36·8 | 40·9 | + 2·7 | 7 | 21 | 5 | 0·87 | + 0·21 | 5·5 | − 2·5 | 11 | − 5 |
| | Donaghadee | 46 | 37 | 44·0 | 38·7 | 41·5 | + 0·6 | 6 | 14 | 6 | 0·90 | + 0·23 | * | * | * | * |
| 10. IRELAND, S. | Dublin | 49 | 28 | 46·4 | 38·3 | 42·5 | + 1·4 | 19 | 10 | 5 | 0·79 | + 0·24 | 4·3 | − 7·5 | 8 | −15 |
| | Parsonstown | 47 | 26 | 44·9 | 36·7 | 41·0 | + 1·6 | 8 | 22 | 6 | 1·46 | + 0·78 | 2·4 | − 7·7 | 5 | −15 |
| | Kilkenny | 47 | 28 | 44·7 | 38·1 | 41·5 | + 1·2 | 8 | 16 | 6 | 1·64 | + 0·89 | * | * | * | * |
| | Roche's Point | 51 | 38 | 49·4 | 44·9 | 47·2 | + 3·4 | 36 | 0 | 6 | 3·59 | + 2·41 | * | * | * | * |
| | Valencia | 53 | 41 | 50·1 | 43·7 | 47·0 | + 1·9 | 35 | 0 | 6 | 3·54 | + 2·16 | 2·1 | − 7·9 | 4 | −15 |
| | Killarney | 51 | 38 | 49·3 | 42·3 | 45·9 | + 2·9 | 27 | 0 | 4 | 1·94 | ? | * | * | * | * |
| | Foynes | 48 | 31 | 46·3 | 39·6 | 43·1 | + 1·8 | 18 | 7 | 6 | 2·21 | ? | * | * | * | − |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 56 | 37 | 52·0 | 42·9 | 47·6 | + 1·0 | 39 | 0 | 4 | ?0·90 | +?0·04 | 4·1 | ? | 7 | ? |
| | Jersey | 50 | 26 | 43·6 | 34·3 | 39·1 | − 4·3 | 4 | 29 | 5 | 0·47 | − 0·37 | 4·4 | − 5·9 | 8 | −10 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

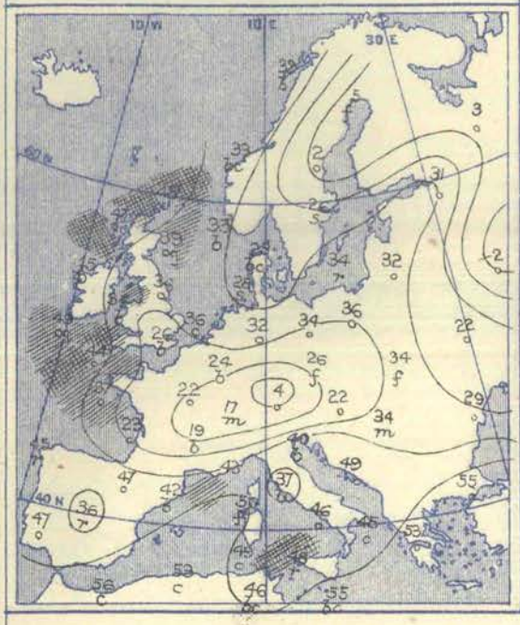
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

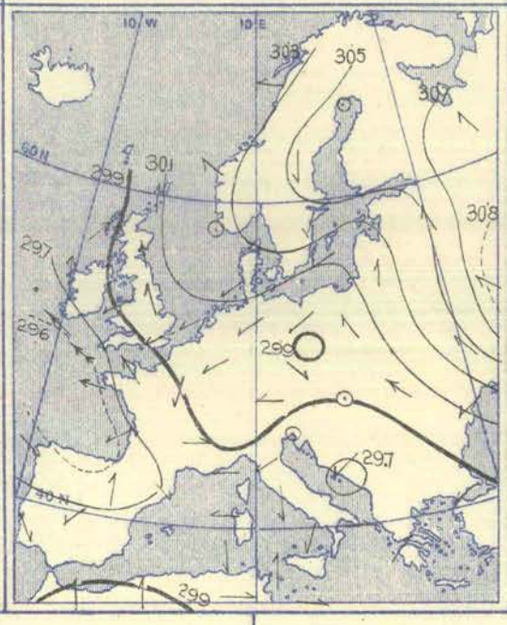
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 17th December.

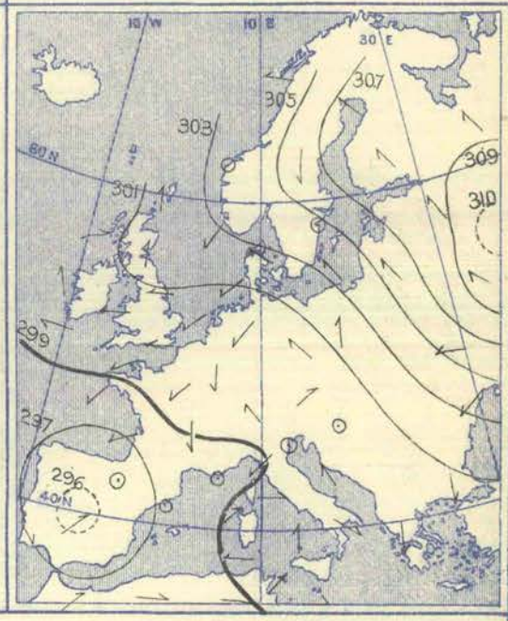
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over Norway, many parts of France, and the northern and eastern shores of the Mediterranean; cloudy or overcast and dull elsewhere, with fog at the Helder, haze at Jersey and Belfort. Some rain in Sweden later, as well as at certain stations in our Islands, in the south of France, and at Lisbon.

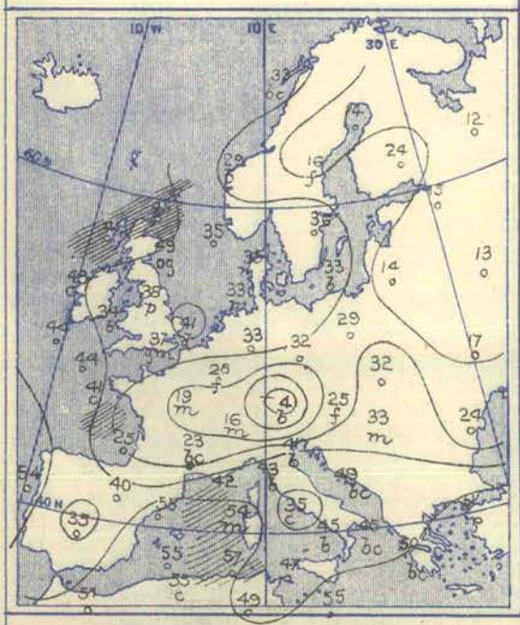
*Temperature* risen decidedly over central Europe; fallen over Ireland and Scotland. Morning readings highest, 53° at Algiers, 49° at Valencia (Ireland), 47° to 45° on the northern and western coasts of the Iberian Peninsula, 44° at Scilly, 43° at Wick and Sumburgh Head. Lowest, (1) −2° Fahr. at Moscow, +3° at Archangel, 5° at Haparanda, 8° at Karlstad; (2) 4° at Munich, 22° at Paris, 24° at Brussels; (3) 26° in London, 24° at Loughborough. Exceeding 45° at several of our western and northern stations later, and touching 38° in London, but not exceeding 25° at Paris, and 27° at Belfort, and 9° at Munich.

*Wind* light to moderate (and anticyclonic) from East and South-East over the greater part of Continental Europe as a whole, more Southerly in our Islands—and blowing a gale at Roche's Point and Scilly; very variable over the Mediterranean. Moderating on our western coasts later, and veering to West in the north of Scotland.

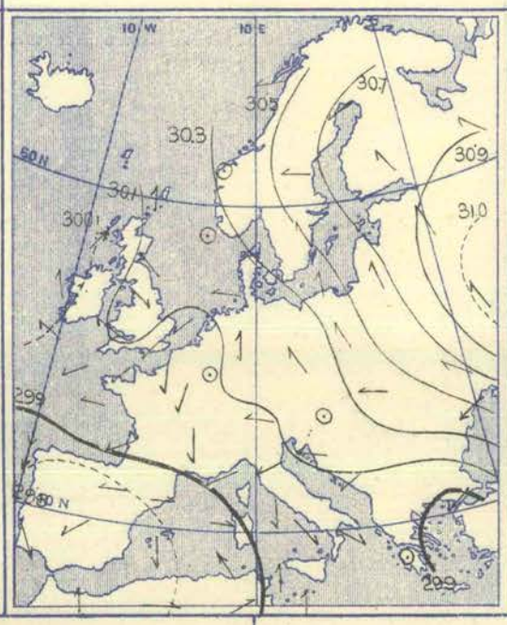
*Barometer* in morning highest, 30·85 ins. at Moscow, and exceeding 30·2 ins. all over Scandinavia and Finland; exceeding 30·0 ins. on our own north-east coasts. Lowest, 29·6 ins. and less in a complex depression off our south-western coasts and over the Bay of Biscay; below 29·7 ins. in a small disturbance over the Adriatic; and below 29·9 ins. in another over Germany. Rising in our Islands later; depression over Bay of Biscay moving to Spain.

## Monday, 18th December.

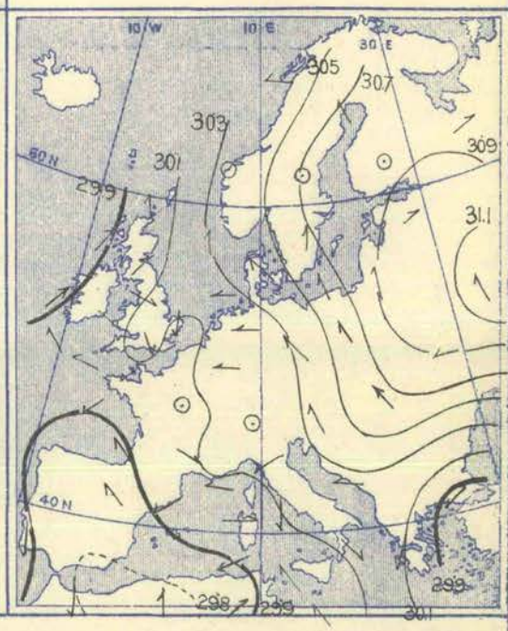
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning dull over Russia, Poland and Hungary; dull and foggy over Sweden and central Europe, as well as over the south-eastern and central parts of England, with slight snow and drizzle in places; fine and bright in some of the northern and western parts of the British Islands, as well as over certain localities in south-western and southern Europe. Considerable rain later in the extreme west of Ireland, still more in the Riviera; slight showers of drizzle or of sleet in a few other localities.

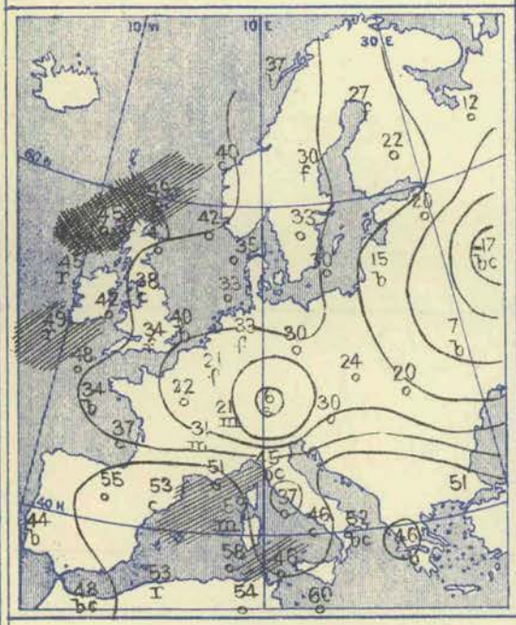
*Temperature* in morning highest at the Atlantic stations, 54° at Corunna, 45° to 43° on the west and south coasts of Ireland, 41° at Brest. Very low over Continental Europe; lowest, (1) 12° at Archangel, 14° at Uleaborg, 13° at Moscow; (2) − 4° Fahr. at Munich, 16° at Belfort, 19° at Paris; (3) 30° at Parsonstown, 32° at Nairn and Loughborough, 34° at Oxford. Increasing later to 49° in the west of Ireland; to between 45° and 40° over the greater part of the United Kingdom; to between 55° and 52° in the south-west of France, but to only 7° at Munich.

*Wind* very light over the Continent, mainly Easterly to Southerly over the eastern and central countries, but blowing hard from North in Portugal. Southerly over Ireland and Scotland—moderate in force. The Southerly wind increasing at the western Irish stations later.

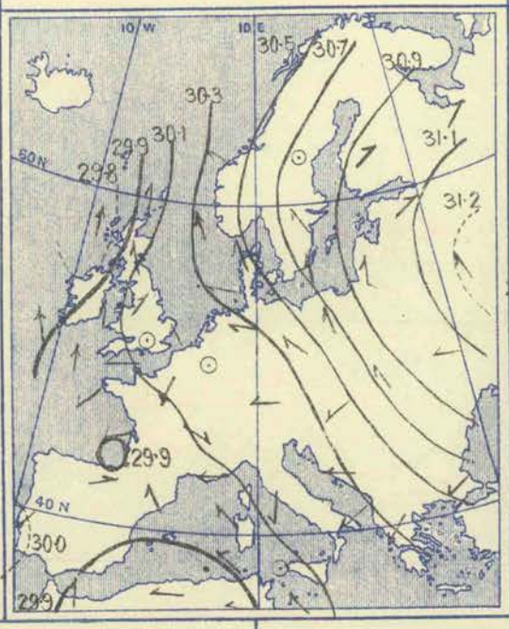
*Barometer* highest, 31·1 ins. to 30·8 ins. over the northern half of Russia, and exceeding 30·1 ins. all over Scandinavia, the North Sea and central Europe. Lowest, (1) below 30·0 ins. off the extreme north-west of Ireland; (2) below 29·9 ins. over central Spain, and also over Asia Minor. Several very slight irregularities over France and western Germany; falling fast later over Ireland and the west of Scotland, as a new depression advanced from the Atlantic, rising over Spain.

## Tuesday, 19th December.

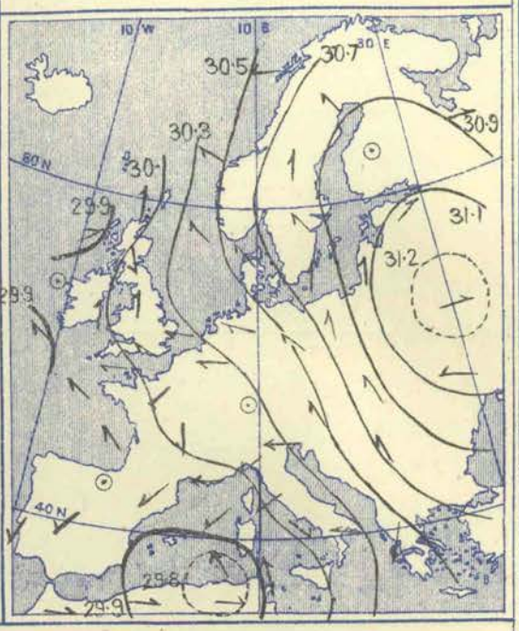
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over the southern half of Russia, Poland, and the eastern parts of Germany, very dull over the North Sea, foggy or hazy over England, rainy over Ireland. Heavy rain later at Perpignan and over the southern half of Ireland, much slighter falls in the north of Ireland and over Scotland.

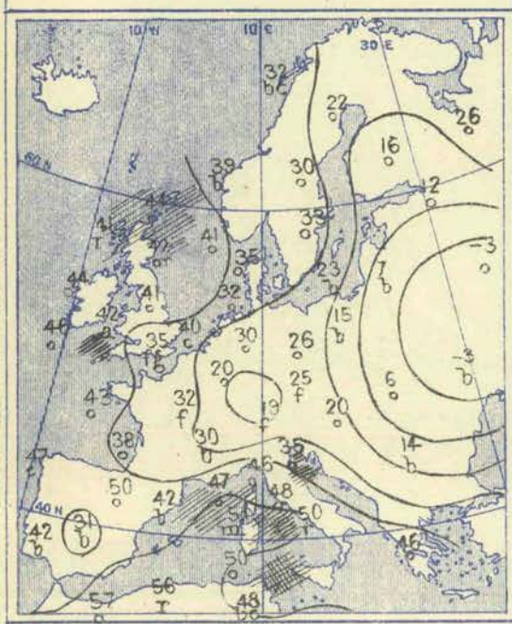
*Temperature* very low over Russia. Morning readings highest, 60° at Malta, 59° at Sanguinaire, 55° at Biarritz, 49° at Valencia, 48° at Roche's Point, and much above 40° on our western coasts generally. Lowest, (1) −17° Fahr. at Moscow, −3° at Kharkov, + 7° at Kiev, 20° at St. Petersburg; (2) 6° at Munich, 19° at Brussels, 22°. at Paris; (3) above 32° over England. Rising later to between 50° and 45° at many of our western stations, but to only 39° in London, 32° at Paris, and 19° at Munich.

*Wind* (1) South-Easterly, light to moderate over the eastern and northern parts of Europe, more Easterly over France, and blowing strongly over the Riviera; light from between East and South over England, Southerly over the greater part of Scotland and Ireland, and blowing hard in a few places; North-Westerly at Blacksod. Decreasing in force at our western and southern stations later.

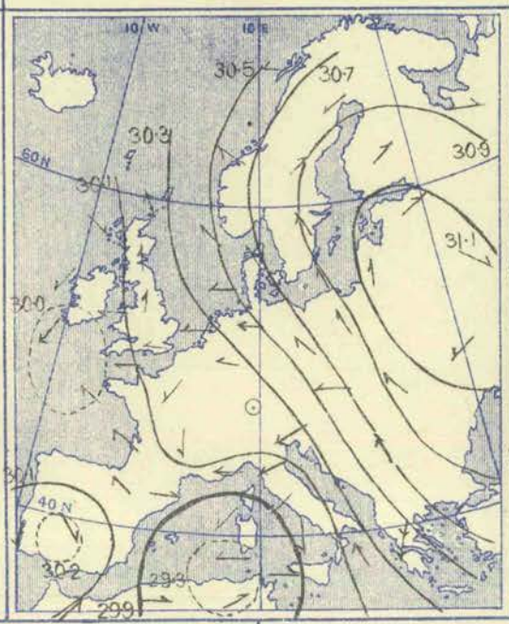
*Barometer* in morning highest, 31·28 ins. at Moscow, and exceeding 31·0 ins. over the greater part of central Russia; exceeding 30·3 ins. all over Scandinavia and eastern Germany. Lowest, 29·8 ins. and less over the north of Russia, and off the west of Scotland, and about 29.9 ins. over the south-west of France. Little change over western Europe later, but some indications shown of a shallow depression forming over the south-west of Ireland.

## Wednesday, 20th December.

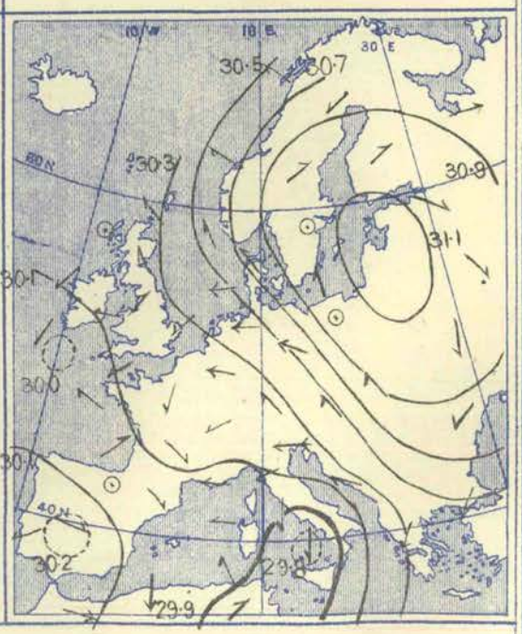
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine and bright over several parts of northern and eastern Europe, as well as over Spain and the southern parts of France, foggy and gloomy over the north of France and east of England, rainy, more or less at our western and northern stations. Considerable rain later in the south of Ireland and east of Scotland, and smaller quantities on our western and northern stations. Very fine over Scandinavia, Denmark, and the south of France.

*Temperature* fallen over central Europe, little changed in our Islands. Morning readings highest, 57° at Nemours, 54° at Sanguinaire, 50° at Palermo, Biarritz, and Roche's Point, and 46° to 44° on our south-west coasts generally. Lowest, −6° Fahr. to −3° over the southern parts of central Russia, +12° at St. Petersburg and Warsaw, 14° at Hermanstadt, 19° at Breslau, 20° at Vienna and at Brussels, 32° at Paris, 34° at Loughborough. Rising later to 51° in the south of Ireland and to more than 40° nearly all over our Islands, and to 58° at Perpignan.

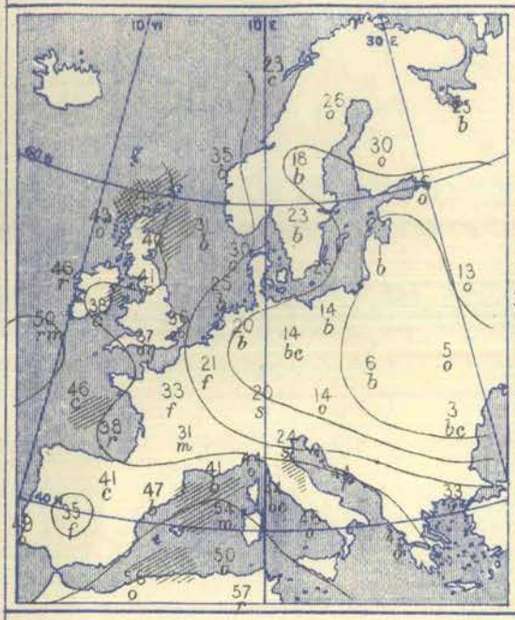
*Wind* (1) anticyclonic, South-Easterly over central Europe and the Baltic, South-Westerly at several northern stations and moderate in force; (2) Southerly to Easterly over Great Britain, North-Easterly in the west of Ireland; (3) Separate cyclonic circulation prevailing over the Mediterranean, and light North-Westerly to Northerly winds over Spain.

*Barometer* highest, 31·2 ins. to 31·0 ins. over Russia and exceeding 30·5 ins. over the whole of northern, central, and south-eastern Europe. Lowest, 29·8 ins. and less in a shallow depression over the southern part of the Mediterranean (between Cagliari and Tunis); (2) 30·0 ins. and less in a very shallow disturbance over the south of Ireland. Gradients rather steep over the eastern shores of the Adriatic. Barometer rising over the United Kingdom and neighbouring countries later.

## Thursday, 21st December.

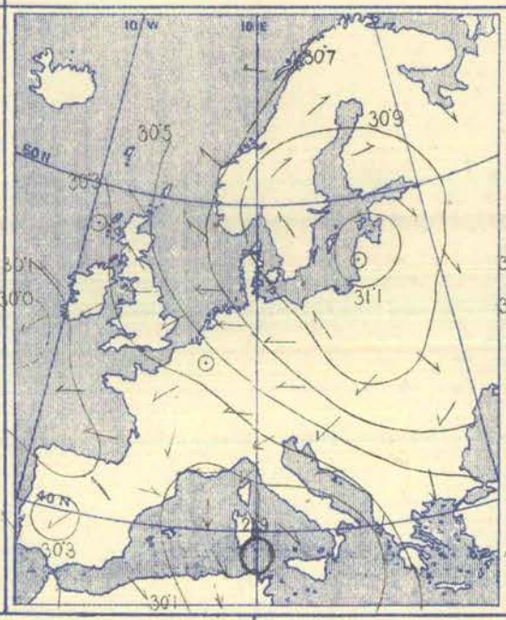
### Temperature and Weather.

8 a.m.

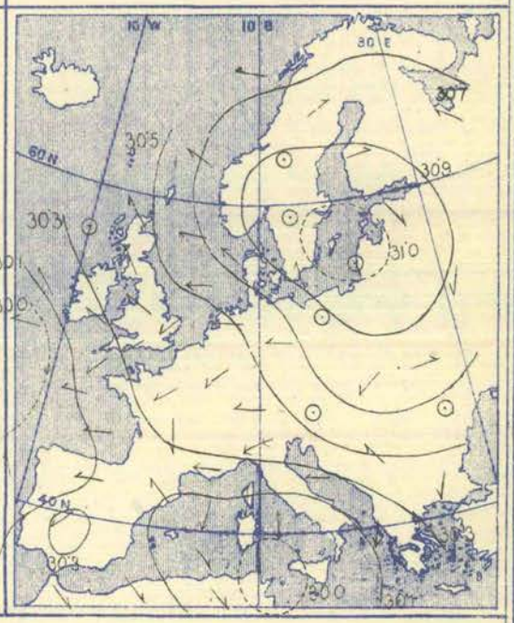


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning fine and bright over Scandinavia, the Baltic, western Russia, eastern Germany and Austria, also over some parts of southern Europe; very dull, foggy, and gloomy over Great Britain and France, rainy in Ireland and Scotland. Much rain in the south-east and south of Ireland later; remaining fine over northern and south-western Europe.

*Temperature* rising over Russia, falling over Sweden and central Europe. Morning readings highest, (1) 56° to 57° in the north of Africa, 50° at Cagliari; (2) 50° at Valencia and Roche's Point, 46° at Brest and Blacksod Point, 43° at Stornoway. Lowest, (1) 17° at Karlstad, 18° at Hernosand, 16° at St. Petersburg, 13° at Moscow; (2) 0° to 6° in the south of Russia, 8° at Breslau, 20° at Munich, 33° at Paris, 37° in London. Rising during day to upwards of 40° all over the British Islands, and to between 53° and 50° on the south coast of Ireland. Exceeding 50° also in the south of France.

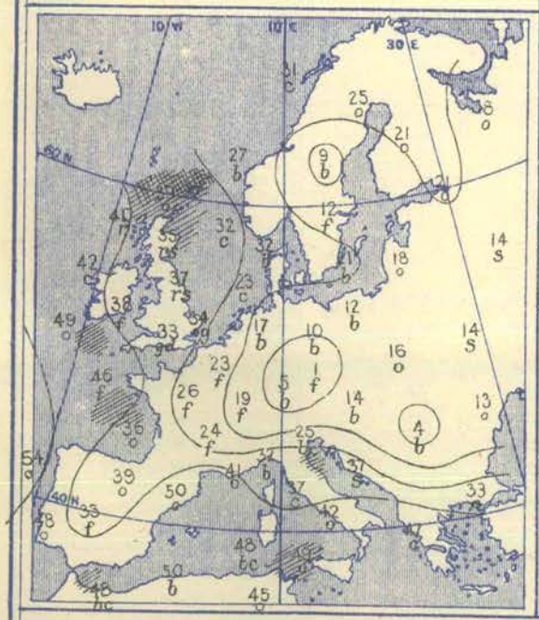
*Wind* (1) South-Easterly to Easterly over the northern half of Europe (but North-Easterly at Valencia), and blowing very strongly at Roche's Point; (2) Easterly to Northerly over the southern countries and the Mediterranean, Westerly at Tunis. Nothing but local changes later, the wind at Roche's Point rising to a gale.

*Barometer* in morning highest, (1) 31·13 ins. at Riga, and exceeding 30·6 ins. in an anticyclone covering northern, eastern and south-eastern Europe; (2) 30·3 ins. to 30·1 ins. in a separate anticyclone over the Iberian Peninsula. Lowest, (1) 30·0 ins. to 29·9 ins. in a depression over the Mediterranean (central area between Cagliari and Sicily); (2) below 29·0 ins. in the south-west of Ireland. Changes very undecided later.

## Friday, 22nd December.

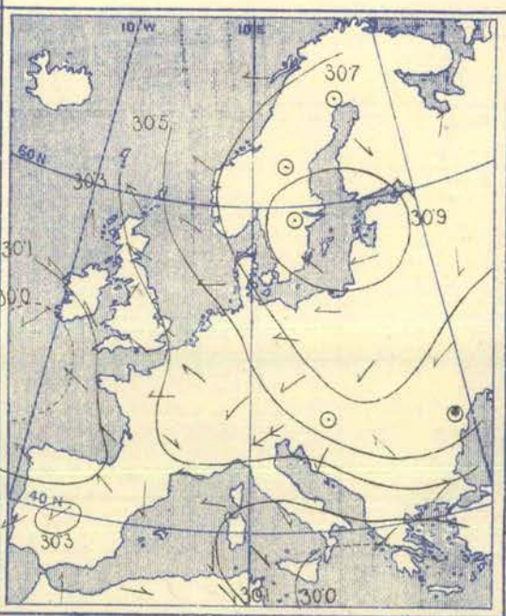
### Temperature and Weather.

8 a.m.

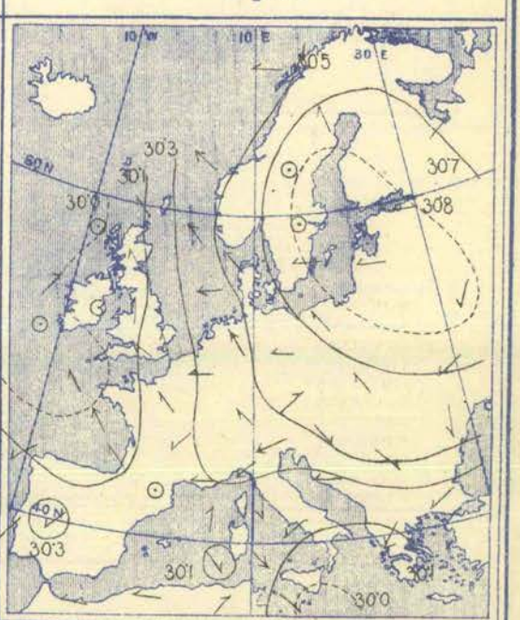


### Barometer and Wind.

8 a.m.



6 p.m.



*Weather* in morning very fine over Norway, the Baltic, and north Germany, foggy and dull over western Europe and England, rain, snow, and gloom over Scotland and Ireland, snow in Russia. Rain or wet snow later in almost all parts of our Islands, fog in many parts both of this country and France.

*Temperature* very low over Russia and central Europe. Morning readings highest, 54° at Corunna, 50° at Algiers and Barcelona, 49° in the south of Ireland, 46° at Brest. Lowest, (1) ° at Karlstad, 9° at Hernösand, 14° at Moscow, 18° at Archangel; (2) 1° at Cracow, 4° at Hermanstadt, 5° at Munich, 10° at Berlin, 26° at Paris; (3) 33° to 35° over the inland parts of Great Britain. Rising later to 50° or more in the south of Ireland, to 48° at Blacksod Point, but not exceeding 33° at Paris, 18° at Berlin, nor 12° at Munich.

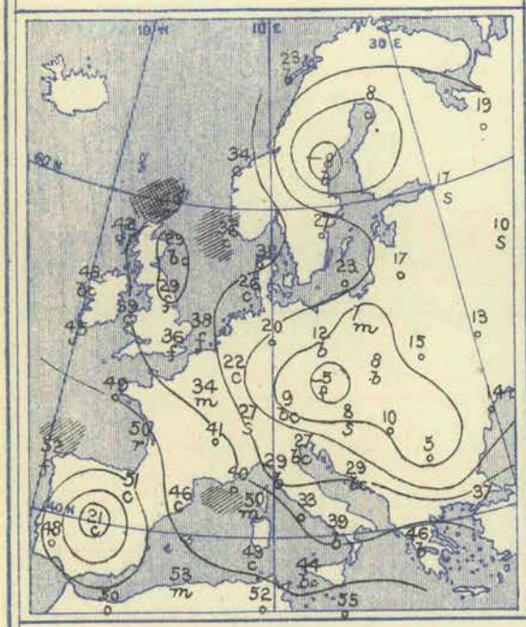
*Wind* (1) light and anticyclonic over the northern and eastern countries, Northerly in the north of Russia, South-Easterly over Scandinavia; (2) South-Easterly and light over the greater part of our Islands and the Bay of Biscay, but blowing hard at Roche's Point; (3) North-Easterly over the major part of France, Easterly over the Mediterranean. A Southerly air appearing later in the extreme north-west of Ireland.

*Barometer* highest, (1) 30·9 ins. and more to 30·6 ins. over northern Europe and the Baltic, and exceeding 30·3 ins. over all the north-eastern and eastern countries; (2) 30·3 ins. and more to 30·1 ins. over Spain. Lowest, 30·0 ins. and less in a shallow depression off our south-west coasts, and also over the south-eastern parts of the Mediterranean. Falling later—decidedly in Scotland and Norway—northern anticyclone giving way.

## Saturday, 23rd December.

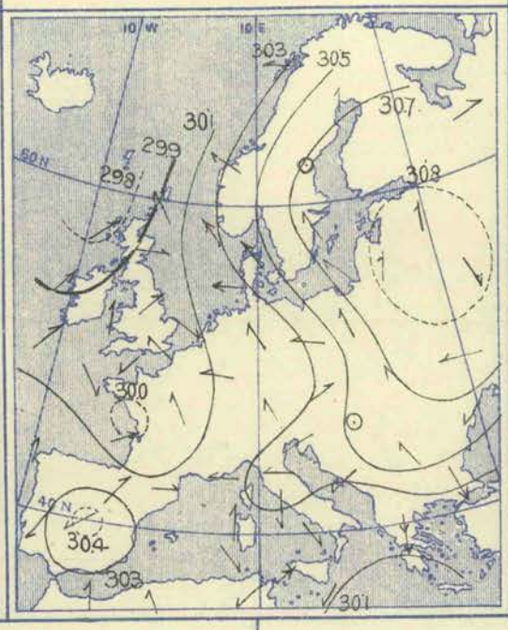
### Temperature and Weather.

8 a.m.

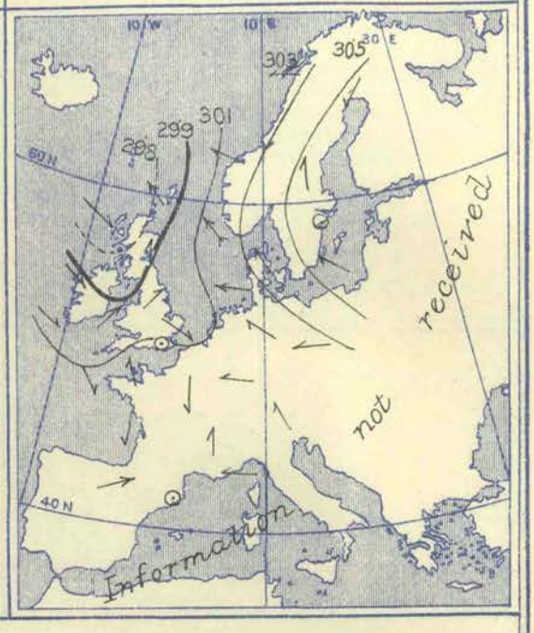


### Barometer and Wind.

8 a.m.



6 p.m.




*Weather* in morning dull over Russia, the Baltic, the Netherlands, France, and England, with snow over several parts of the eastern countries; rain in France; fog over England. Fine over several parts of Scotland, Ireland, and the Mediterranean. Rain falling at times later—most in Ireland and Scotland; fog becoming very dense in London, and continuing for many hours.

*Temperature* in morning highest, 51° at Biarritz, 49° at Brest, 48° to 47° in the west of Ireland, and 42° at Jersey. Lowest, (1) 8° Fahr. at Uleaborg, 10° at Moscow, and below 20° all over Russia; (2) −5° Fahr. at Prague, +8° at Vienna, Cracow, and Breslau, 12° at Berlin, 20° at Cuxhaven; (3) 29° at Nairn, 30° at Leith, 36° in London. Rising to above 40° later over nearly the whole of the British Isles, to 57° at Biarritz, and 59° at Lisbon.

*Wind* South-Easterly and Easterly, moderate to strong, over Scandinavia and the eastern shores of the North Sea. Light and anticyclonic over the rest of Continental Europe. Very variable and light over England, but moderate to fresh from the Southward and South-Westward over Ireland and Scotland. Shifting to North-West again at our north-western and western stations in the evening; a South-Westerly breeze spreading over England.

*Barometer* in morning highest, (1) 30·8 ins. and more over central Russia, and ranging between that value and 30·2 ins. over Austria, Germany, the Baltic, and eastern shores of the North Sea; (2) 30·4 ins. and more to 30·1 ins. over the Iberian Peninsula. Lowest, 29·8 ins. to 30·0 ins. in a depression over our north-west districts, and below 30·0 ins. in a secondary near Rochefort. Beginning to rise in Ireland later, but falling all over the Continent.

### GENERAL NOTES.

At the commencement of this week a large anticyclone, in which the maximum readings ranged from 30·3 ins. and more to 30·5 ins., covered Russia and Finland, and extended westwards in a ridge-like form to our own north-east coasts, while depressions lay—some over the Atlantic and the Bay of Biscay, another (shallower) over the Adriatic. The wind was consequently Easterly in most places, Northerly over the Mediterranean, but drew into South-East and South over Ireland and Scotland, and in those places it blew strongly.

This general condition (of high Russian and low Atlantic and Mediterranean pressures) continued in force for some days, the anticyclone increasing so much in intensity that on Tuesday it exceeded 31·2 ins. over Russia; several times some disturbances over the Atlantic advanced to our western coasts, but failed to effect an entrance, so that while the weather over our western districts was rainy and comparatively mild, that over the Continent was cold and winterly, and even at our own eastern stations it was very similar.

On Wednesday the anticyclone began to decrease in intensity, and a well-marked depression appeared over the Mediterranean, causing gales and strong winds which lasted for some days in northern Italy.

At the end of the week, however, pressure near the anticyclone's centre still exceeded 30·3 ins. and the Southerly current had made but very slight inroads beyond our western and northern districts. A new anticyclone had been formed over Spain since Thursday, and was growing in height.

## BRIGHT SUNSHINE Values for the Week, in addition to those found on page 302.

| STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 0·0 | ? | 0 | ? | WATERGATE (Emsworth) | 0·9 | ? | 2 | ? |
| STRATHPEFFER SPA | 4·6 | − 2·4 | 10 | − 6 | BRIGHTON | 4·5 | − 6·9 | 8 | −13 |
| EDINBURGH | 0·0 | − 5·5 | 0 | −11 | WORTHING | 2·7 | ? | 5 | ? |
| MORPETH | | ? | | ? | BOGNOR | 0·0* | ? | 0* | ? |
| NEWCASTLE-ON-TYNE | 0·0 | ? | 0 | ? | EASTBOURNE | 6·3 | − 6·2 | 12 | −11 |
| OSWALDKIRK (Yorkshire) | | | | | VENTNOR HOSPITAL | 1·3 | ? | 2 | ? |
| YORK | | | | | SOUTHPORT | 0·5 | ? | 1 | ? |
| LOWESTOFT | 1·4 | ? | 3 | ? | COLWYN BAY | | ? | | ? |
| HOLLESLEY BAY | 2.4 | ? | 5 | ? | RHYL | 5·6* | ? | 11* | ? |
| SHEFFIELD | 0·0 | ? | 0 | ? | ABERDOVEY | 11·3* | ? | 22* | ? |
| WORKSOP | 0·0 | − 7·5 | 0 | −14 | TENBY | 2·5 | − 3·6 | 5 | −15 |
| THURCASTON (Leicestershire) | | | | | NEWQUAY | 2·1 | − 9·1 | 4 | −17 |
| MARGATE | 2·8 | − 8·0 | 5 | −15 | TORQUAY | 1·9 | − 9·9 | 3 | −19 |
| WESTBOURNE (Emsworth) | 3·0* | − 8·2 | 6* | −15 | GUERNSEY | 0·8* | − 9·5 | 1* | −17 |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

## REPORTS received too late for insertion in their proper places.

| DATE OF REPORT. | NAME OF STATIONS. | Temperature. (In Degrees Fahrenheit.) Highest observed. | Lowest observed. | Averages for the week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from the Mean for the Week. | Accumulated Heat for the Week (in Day-Degrees). Above 42° F. | Below 42° F. | Rainfall. Number of Days with Rain. | Rainfall in the Week. | Difference from the Mean for the Week. | Bright Sunshine. Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of Possible duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Week ending Nov. 25th, 1899 | Morpeth | — | — | — | — | — | — | — | — | — | — | — | 14·5 | ? | 27 | ? |
| " " " " | Rhyl | — | — | — | — | — | — | — | — | — | — | — | 4·4 | ? | 8 | ? |
| " " Dec. 2nd, " | Oswaldkirk | — | — | — | — | — | — | — | — | — | — | — | 6·2 | − 3·6 | 11 | − 7 |
| " " " " | Rhyl | — | — | — | — | — | — | — | — | — | — | — | 20·9 | ? | 38 | ? |
| " " " 9th, " | Tenby | — | — | — | — | — | — | — | — | — | — | — | 10·3 | − 0·2 | 19 | − 1 |
| " " " 16th, " | Morpeth | — | — | — | — | — | — | — | — | — | — | — | 6·2 | ? | 13 | ? |
| " " " " " | Newquay | — | — | — | — | — | — | — | — | — | — | — | 13·4 | + 2·1 | 24 | + 2 |

# WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON, S.W. ; R. H. SCOTT, F.R.S., SECRETARY.

PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER STREET, EDINBURGH, 88 & 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS & CO., 104, GRAFTON STREET, DUBLIN.

VOL. XVI. NO. 52.] *Third Series.* WEEK ENDING SATURDAY, DECEMBER 30TH, 1899. [*Price 6d.* *Annual Subscription post paid £1 10s. 0d.*

## I.—SUMMARY OF TEMPERATURE, RAINFALL, AND DURATION OF BRIGHT SUNSHINE IN THE UNITED KINGDOM, FOR AGRICULTURAL AND SANITARY PURPOSES.

**Explanation of the Summary.**—The distribution of the Districts, and the Stations from which reports are received, are shown on the second page of this number. TEMPERATURE.—The *Daily Mean* is obtained from the maxima and minima by applying a suitable correction determined for each month. The *Mean for the Week* is the mean daily temperature (obtained as above) in the corresponding week, derived from 25 years observations (1871-95). ACCUMULATED TEMPERATURE indicates the combined amount and duration of the excess or defect of temperature above or below 42° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for 24 hours, or any other number of degrees, for an inversely proportional number of hours. The *Means* with which the current values are compared are those for the corresponding period in the fifteen years 1881-95. RAINFALL.—The *Mean Amounts* are those for the corresponding periods in the thirty years 1866-95, but the *Mean numbers of Rainy Days* are those for the fifteen years 1881-95 only. BRIGHT SUNSHINE.—The *Mean Values* employed are those for the corresponding periods in the fifteen years 1881-95.

A more detailed explanation of the meaning of "Accumulated Temperature" will be found in the Preface to Vol. I. Second Series.

### Temperature of the Air.

| | DISTRICTS. (See p. 308.) | Observed during the Week. Highest. | Lowest. | Averages of Daily Maxima. | Daily Minima. | Daily Mean. | Above or below the Mean for the Week. | Accumulated. For the Week. Above 42° | Difference from Mean. | Below 42° | Difference from Mean. | From January 1st, 1899. Above 42° | Difference from Mean. | Below 42° | Difference from Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | ° | ° | ° | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 45 | 15 | 38·4 | 28·5 | 33·6 | 4 below | 0 | − 7 | 59 | +26 | 2369 | +393 | 809 | − 31 |
| | 1. SCOTLAND, EAST | 45 | 12 | 37·4 | 26·4 | 32·1 | 5 below | 0 | − 6 | 69 | +28 | 2586 | +224 | 969 | + 50 |
| | 2. ENGLAND, N.E. | 45 | 19 | 40·0 | 29·6 | 34·8 | 3 below | 0 | − 7 | 50 | +14 | 2918 | +341 | 679 | − 61 |
| | 3. ENGLAND, EAST | 50 | 21 | 42·3 | 31·1 | 36·9 | 1 below | 1 | − 7 | 40 | − 1 | 3369 | +392 | 673 | −166 |
| | 4. MIDLAND COUNTIES | 50 | 18 | 41·5 | 30·2 | 36·1 | 1 below | 0 | − 9 | 41 | 0 | 3334 | +383 | 789 | − 72 |
| | 5. ENGLAND, SOUTH | 51 | 21 | 45·7 | 33·6 | 39·9 | 1 above | 10 | − 3 | 34 | + 2 | 3815 | +535 | 467 | −154 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 47 | 12 | 39·4 | 29·9 | 34·8 | 4 below | 0 | −11 | 50 | +23 | 2775 | +250 | 575 | − 57 |
| | 7. ENGLAND, N.W. | 48 | 13 | 41·0 | 30·9 | 36·2 | 3 below | 0 | −10 | 41 | +13 | 3169 | +403 | 497 | −106 |
| | 8. ENGLAND, S.W. | 51 | 18 | 45·9 | 35·2 | 40·8 | 0 (average) | 11 | − 6 | 28 | + 7 | 3698 | +579 | 354 | −102 |
| | 9. IRELAND, NORTH | 47 | 17 | 39·5 | 31·5 | 35·7 | 4 below | 0 | −12 | 44 | +19 | 3017 | +359 | 424 | −122 |
| | 10. IRELAND, SOUTH | 49 | 22 | 42·7 | 33·2 | 38·2 | 4 below | 2 | −18 | 33 | +13 | 3551 | +485 | 315 | −102 |
| | —CHANNEL ISLANDS | 55 | 37 | 50·5 | 42·5 | 46·7 | 2 above | 33 | + 5 | 0 | − 7 | 4516 | +864 | 113 | − 58 |

### Rainfall. Bright Sunshine.

| | DISTRICTS. (See p. 308.) | Rainfall. For the Week. No. of Rainy Days. | Total Fall. | More or less than the Mean for the Week. | From January 1st, 1899. No. of Rainy days. | Difference from Mean. | Total fall. | Difference from Mean. | Bright Sunshine. For the Week. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. | From January 1st, 1899. Hours recorded. | Difference from Mean. | Percentage of possible Duration. | Difference from Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 10ths of in. | 10ths of in. | | | Ins. | Ins. | | | | | | | | |
| Principal Wheat-producing Districts. | 0. SCOTLAND, NORTH | 6 | 16 | 3 more | 233 | −12 | 53·4 | + 3·0 | 4 | − 2 | 8 | − 4 | 1211 | +140 | 27 | + 3 |
| | 1. SCOTLAND, EAST | 5 | 9 | 3 more | 200 | + 1 | 33·2 | + 1·2 | 8 | + 1 | 16 | + 1 | 1340 | + 65 | 30 | + 1 |
| | 2. ENGLAND, N.E. | 3 | 6 | 1 more | 173 | −15 | 24·2 | − 2·5 | 15 | + 8 | 31 | +17 | 1356 | +111 | 31 | + 2 |
| | 3. ENGLAND, EAST | 5 | 5 | 0 (average) | 158 | −26 | 22·5 | − 3·7 | 14 | + 3 | 27 | + 6 | 1864 | +270 | 41 | + 6 |
| | 4. MIDLAND COUNTIES | 5 | 10 | 4 more | 154 | −26 | 25·7 | − 2·7 | 12 | + 3 | 22 | + 6 | 1627 | +302 | 38 | + 7 |
| | 5. ENGLAND, SOUTH | 6 | 11 | 5 more | 137 | −39 | 25·0 | − 4·5 | 12 | 0 | 22 | 0 | 1983 | +355 | 44 | + 8 |
| Principal Grazing, &c., Districts. | 6. SCOTLAND, WEST | 6 | 13 | 1 less | 221 | +12 | 52·0 | − 0·2 | 10 | + 3 | 21 | + 7 | 1350 | + 8 | 31 | + 1 |
| | 7. ENGLAND, N.W. | 5 | 13 | 6 more | 187 | − 9 | 35·7 | + 0·2 | 8 | + 1 | 16 | + 1 | 1606 | +262 | 36 | + 6 |
| | 8. ENGLAND, S.W. | 6 | 22 | 12 more | 175 | −25 | 38·6 | − 2·4 | 14 | + 3 | 25 | + 4 | 1907 | +258 | 43 | + 6 |
| | 9. IRELAND, NORTH | 6 | 16 | 8 more | 228 | 0 | 38·6 | + 1·2 | 9 | + 1 | 19 | + 3 | 1405 | +128 | 32 | + 3 |
| | 10. IRELAND, SOUTH | 5 | 18 | 9 more | 191 | −15 | 43·2 | + 4·0 | 14 | + 3 | 27 | + 6 | 1611 | +168 | 37 | + 4 |
| | — CHANNEL ISLANDS | 7 | 18 | 10 more | 169 | −44 | 29·4 | − 4·8 | 10 | − 3 | 18 | − 4 | 2117 | +292 | 50 | + 7 |

*Bright Sunshine.*—Owing to the absence of mean values for some of the stations the "differences from the mean" for Scotland N., England N.E. and E., the Midland Counties, England S., England N.W. and the Channel Islands, are likely occasionally to *appear* defective.

### General Remarks.

*Weather* during this period was very unsettled generally, with much rain in the more southern districts, and rain, sleet or snow in the north. A few fine, clear intervals occurred, however, in most places. Thunder and lightning were experienced in the north of Scotland on Wednesday, and on our south-west coasts on Thursday.

*Temperature* was below the mean in nearly all districts, but just equalled it in England S.W., and was rather above it in England S. and the Channel Islands. Over Ireland the deficit amounted to 4°, and in Scotland to 4° or 5°. The highest of the maxima were recorded either at the commencement or towards the end of the period, and ranged from 55° in the Channel Islands, and from 51° or 50° in several English districts, to 45° in Scotland N. and E. and England N.E. About the middle part of the week the daily maxima were below 32° over the inland parts of Great Britain, the lowest being 26° at Stonyhurst. The absolute minima, which were registered on the 27th or 28th, ranged from 12° in Scotland E. and W., 13° in England N.W.; 15° in Scotland N., and 17° in Ireland N., to 22° in Ireland S., and 37° in the Channel Islands.

*Rainfall* was more than the mean in all districts except England E. and Scotland W., the excess over Ireland and most parts of England being large.

*Bright Sunshine* exceeded the mean generally. The percentage of the possible duration ranged from 31 in England N.E., and 27 in England E. and Ireland S., to 16 in Scotland E. and England W., and 8 in Scotland N.

*Barometer and Wind.*—Soon after the commencement of the period a low pressure area began to extend over our Islands from the northward, and by the 27th covered the entire Kingdom and the North Sea. Winds of moderate force from the South-Westward were consequently general at first, but they subsequently became light from some Northerly point. The latter days of the week were influenced by a large and deep depression which appeared over our south-west coasts on Thursday morning and afterwards moved very slowly in a northerly direction, its centre at the end of the period lying over Scotland. The system produced very general gales, at first mainly from South-East and East, and finally from the Southward or South-Westward.

207 | 90 Wy. & S., Ltd.
319 | 70 12 | 99.

# II.—DATA from which the SUMMARY on page 307 has been calculated.

| Districts. | Names of Stations. | Temperature. In Degrees Fahrenheit. | | | | | | | | Rainfall | | | Bright Sunshine | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Highest observed. | Lowest observed. | Averages for the Week. Of Highest each day. | Of Lowest each day. | For whole of each day. | Difference of Daily Average from Mean for the Week. | Accumulated Heat for the Week (in Day-degrees). Above 42° F | Below 42° F. | Number of Rainy Days. | Rainfall in the Week. | Difference from the Mean for the Week. | Number of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible duration. | Difference from the Mean for the Week. |
| | | ° | ° | ° | ° | ° | ° | ° | ° | | Inches. | Inches. | | | | |
| 0. SCOTLAND, N. | Sumburgh Head | 45 | 30 | 41·6 | 33·7 | 37·8 | − 1·3 | 0 | 29 | 7 | 2·11 | + 1·16 | * | * | * | * |
| | Stornoway | 45 | 28 | 40·4 | 30·9 | 35·8 | − 3·0 | 0 | 43 | 7 | 1·63 | + 0·38 | 7·0 | + 1·1 | 16 | + 3 |
| | Wick | 45 | 19 | 41·1 | 28·1 | 34·9 | − 2·4 | 0 | 50 | 7 | 1·79 | + 1·14 | * | * | * | * |
| | Lairg Ⓢ | 43 | 15 | 34·2 | 23·8 | 29·2 | − 7·0 | 0 | 90 | 6 | 1·76 | + 0·87 | * | * | * | * |
| | Glencarron Ⓢ | 42 | 18 | 36·4 | 26·8 | 31·8 | − 5·1 | 0 | 71 | 6 | 1·45 | − 0·78 | * | * | * | * |
| | Fort Augustus Ⓢ | 44 | 16 | 37·5 | 27·2 | 32·6 | − 5·3 | 0 | 66 | 6 | 0·89 | − 0·21 | 1·5 | − 0·3 | 3 | − 2 |
| | Fort William Ⓢ | 44 | 17 | 37·6 | 28·7 | 33·3 | − 5·4 | 0 | 61 | 6 | 1·32 | − 0·81 | 0·0 | − 3·3 | 0 | − 7 |
| 1. SCOTLAND E. | Nairn | 44 | 21 | 38·6 | 26·4 | 32·7 | − 4·4 | 0 | 65 | 6 | 1·25 | + 0·82 | * | * | * | * |
| | Aberdeen | 44 | 23 | 38·7 | 28·4 | 33·8 | − 3·5 | 0 | 57 | 6 | 0·82 | + 0·19 | 7·4 | − 2·3 | 16 | − 5 |
| | Braemar Ⓢ | 38 | 12 | 33·7 | 23·1 | 28·6 | − 5·6 | 0 | 94 | 4 | 0·61 | − 0·08 | 3·3† | − 1·7† | 7† | − 3† |
| | Ochtertyre Ⓢ | 41 | 20 | 37·4 | 25·9 | 31·9 | − 4·5 | 0 | 71 | 5 | 0·99 | − 0·01 | * | * | * | * |
| | Leith Ⓢ | 45 | 19 | 39·0 | 27·1 | 33·3 | − 5·5 | 0 | 61 | 5 | 0·45 | + 0·05 | * | * | * | * |
| | Marchmont Ⓢ | 40 | 20 | 36·7 | 27·4 | 32·2 | − 4·0 | 0 | 69 | 4 | 1·25 | + 0·61 | 11·8 | + 4·0 | 24 | + 8 |
| 2. ENGLAND, N.E. | Alnwick Castle | 43 | 19 | 39·3 | 26·5 | 32·2 | − 5·7 | 0 | 69 | 3 | 0·35 | − 0·26 | * | * | * | * |
| | Durham | 43 | 20 | 38·6 | 28·1 | 33·6 | − 3·1 | 0 | 59 | 4 | 0·67 | + 0·09 | 19·0 | + 8·9 | 39 | − 19 |
| | Shields | 44 | 26 | 39·0 | 30·6 | 35·0 | − 3·4 | 0 | 49 | 3 | 0·91 | + 0·43 | * | * | * | * |
| | Scarborough Ⓜ | | | | | | | | | | | | | | | |
| | Spurn Head | 45 | 25 | 43·3 | 33·1 | 38·4 | − 0·2 | 4 | 33 | 2 | 0·71 | + 0·29 | * | * | * | * |
| 3. ENGLAND, E. | Hillington Ⓜ | 48 | 23 | 40·8 | 30·2 | 35·7 | − 1·0 | 0 | 44 | 5 | 0·47 | − 0·03 | 11·2 | + 1·4 | 22 | + 4 |
| | Yarmouth | 47 | 21 | 41·9 | 31·4 | 36·9 | − 0·9 | 0 | 36 | 4 | 0·33 | − 0·19 | * | * | * | * |
| | Geldeston | 49 | 21 | 42·1 | 30·8 | 36·7 | − 1·3 | 0 | 41 | 5 | 0·46 | + 0·01 | 12·6 | + 1·5 | 24 | + 3 |
| | Cambridge | 50 | 22 | 43·2 | 30·4 | 37·1 | − 0·1 | 3 | 44 | 4 | 0·39 | − 0·01 | 13·1 | + 3·4 | 25 | + 7 |
| | Felixstowe | 47 | 24 | 42·2 | 32·5 | 37·5 | − 0·6 | 1 | 34 | 5 | 0·54 | ? | 20·0† | ? | 38† | ? |
| | Rothamsted | 49 | 22 | 43·4 | 31·2 | 37·5 | + 0·1 | 4 | 40 | 5 | 0·57 | + 0·02 | 14·6 | + 4·7 | 27 | + 9 |
| 4. MIDLAND COUNTIES | Bawtry (Hesley Hall) | 44 | 18 | 39·7 | 29·7 | 34·9 | − 2·1 | 0 | 50 | 3 | 0·83 | + 0·36 | * | * | * | * |
| | Loughborough | 48 | 22 | 41·6 | 30·4 | 36·2 | − 1·2 | 0 | 41 | 5 | 0·93 | + 0·43 | * | * | * | * |
| | Stamford (Ketton) | 46 | 20 | 41·3 | 29·3 | 35·5 | − 1·1 | 0 | 46 | 5 | 0·71 | + 0·23 | * | * | * | * |
| | Cheadle Ⓜ | 45 | 19 | 38·5 | 28·9 | 33·9 | − 2·7 | 0 | 57 | 4 | 1·15 | + 0·45 | * | * | * | * |
| | Shirley (near Solihull) | 47 | 24 | 40·9 | 31·3 | 36·3 | − 0·6 | 0 | 40 | 7 | 0·94 | ? | * | * | * | * |
| | Churchstoke Ⓜ | 46 | 19 | 41·8 | 29·2 | 35·8 | − 2·0 | 0 | 43 | 5 | 1·81 | + 1·11 | 17·2 | + 8·3 | 33 | +16 |
| | Hereford (Belmont) Ⓜ | 50 | 19 | 42·5 | 30·2 | 36·6 | − 1·6 | 1 | 43 | 5 | 1·30 | + 0·77 | * | * | * | * |
| | Cirencester | 48 | 24 | 43·7 | 30·7 | 37·4 | + 0·2 | 5 | 42 | 4 | 1·14 | + 0·50 | 9·0 | − 1·0 | 17 | − 1 |
| | Oxford | 49 | 22 | 43·7 | 32·4 | 38·3 | + 0·1 | 5 | 37 | 6 | 0·31 | − 0·14 | 12·4 | + 2·5 | 23 | + 5 |
| 5. ENGLAND, S. | London | 50 | 25 | 44·4 | 32·4 | 38·6 | − 0·4 | 7 | 37 | 5 | 0·46 | − 0·03 | 8·1† | + 4·2† | 15† | + 6† |
| | Cranley Ⓜ | 50 | 24 | 45·3 | 31·3 | 38·6 | − 0·4 | 9 | 42 | 4 | 0·64 | ? | * | * | * | * |
| | Dungeness | 50 | 25 | 46·6 | 33·9 | 40·5 | + 0·7 | 13 | 33 | 7 | 1·64 | + 1·04 | * | * | * | * |
| | Hastings (St. Leonards) | 50 | 25 | 46·0 | 34·7 | 40·6 | + 0·5 | 11 | 30 | 7 | 1·46 | + 0·82 | 10·4 | − 2·8 | 19 | − 5 |
| | Southampton | 51 | 25 | 46·6 | 34·8 | 40·9 | + 1·0 | 13 | 30 | 7 | 0·83 | + 0·11 | 13·9 | + 2·6 | 26 | + 5 |
| | Portland Bill | 50 | 28 | 47·7 | 37·4 | 42·8 | + 1·8 | 25 | 13 | 5 | 0·85 | ? | * | * | * | * |
| | Shaftesbury Ⓜ | 48 | 21 | 43·3 | 31·0 | 37·4 | + 1·0 | 4 | 41 | 6 | 1·51 | + 0·82 | * | * | * | * |
| 6. SCOTLAND, W. | Laudale (Loch Sunart) | 45 | 18 | 39·3 | 30·5 | 35·1 | − 5·0 | 0 | 48 | 6 | 1·40 | − 0·62 | * | * | * | * |
| | Glasgow | 43 | 18 | 36·9 | 28·7 | 33·0 | − 5·4 | 0 | 63 | 5 | 0·77 | − 0·13 | 3·7 | − 0·5 | 8 | − 1 |
| | Glenlee Ⓢ | 44 | 12 | 39·1 | 26·0 | 32·8 | − 4·4 | 0 | 64 | 5 | 1·50 | 0·00 | * | * | * | * |
| | Douglas (Isle of Man) | 47 | 27 | 42·4 | 34·3 | 38·5 | − 2·4 | 1 | 28 | 6 | 1·32 | + 0·28 | 16·6 | + 6·8 | 33 | +15 |
| 7. ENGLAND, N.W. | Newton Reigny | 42 | 13 | 38·4 | 26·4 | 32·6 | − 3·5 | 0 | 66 | 3 | 0·99 | ? | 3·8 | ? | 8 | ? |
| | Stonyhurst | 45 | 14 | 38·1 | 27·7 | 33·1 | − 4·5 | 0 | 62 | 5 | 1·82 | + 0·80 | 3·9 | − 2·4 | 8 | − 4 |
| | Blackpool Ⓜ | 47 | 21 | 42·6 | 30·9 | 37·0 | − 1·6 | 2 | 41 | 5 | 0·88 | + 0·18 | 1·8 | − 4·2 | 4 | − 8 |
| | Manchester (Prestwich) | 47 | 15 | 40·0 | 28·5 | 34·5 | − 2·9 | 0 | 53 | 6 | 1·45 | + 0·66 | 3·8 | ? | 7 | ? |
| | Liverpool Obsy. (Bidston) | 48 | 24 | 41·9 | 32·0 | 37·2 | − 2·4 | 0 | 34 | 6 | 1·39 | + 0·84 | 9·2 | ? | 18 | ? |
| | Llandudno Ⓜ | 48 | 28 | 43·1 | 35·1 | 39·3 | − 2·3 | 3 | 26 | 6 | 1·04 | + 0·35 | 13·3 | + 6·0 | 26 | +13 |
| | Holyhead | 47 | 32 | 43·0 | 35·9 | 39·6 | − 2·8 | 3 | 23 | 7 | 1·57 | + 0·74 | * | * | * | * |
| 8. ENGLAND, S.W. | Llandovery | 51 | 18 | 44·0 | 28·4 | 36·5 | − 1·7 | 6 | 51 | 6 | 1·60 | + 0·38 | * | * | * | * |
| | Pembroke | 49 | 32 | 46·0 | 38·6 | 42·5 | − 0·6 | 18 | 10 | 7 | 1·93 | + 1·05 | 11·3 | + 0·4 | 21 | + 1 |
| | Clifton | 49 | 26 | ? 45·0 | ? 33·4 | ? 39·4 | ? + 0·2 | ? 8 | ? 34 | ? 5 | 1·92 | + 1·20 | * | * | * | * |
| | Arlington (N. Devon) | 48 | 24 | 44·0 | 33·7 | 39·1 | − 0·8 | 6 | 32 | 7 | 3·10 | + 1·88 | * | * | * | * |
| | Cullompton Ⓜ | 50 | 23 | 46·3 | 33·2 | 40·0 | + 1·0 | 12 | 36 | 6 | 2·65 | + 1·87 | 13·5 | + 4·5 | 25 | + 9 |
| | Falmouth | 51 | 34 | 48·3 | 40·7 | 44·7 | + 0·8 | 24 | 4 | 7 | 1·71 | + 0·53 | 14·7 | + 1·7 | 27 | + 4 |
| | Plymouth | 51 | 28 | 47·7 | 38·2 | 43·1 | + 1·0 | 24 | 11 | 7 | 2·11 | + 1·26 | 13·5 | + 1·6 | 24 | + 3 |
| 9. IRELAND, N. | Malin Head | 44 | 32 | 40·9 | 35·9 | 38·5 | − 3·1 | 0 | 25 | 6 | 1·04 | ? | * | * | * | * |
| | Londonderry | 43 | 21 | 37·6 | 29·9 | 33·9 | − 5·8 | 0 | 57 | 6 | 1·59 | + 0·68 | * | * | * | * |
| | Edenfel (Omagh) | 42 | 17 | 36·3 | 28·0 | 32·3 | − 5·0 | 0 | 68 | 5 | 1·04 | + 0·22 | * | * | * | * |
| | Blacksod | 47 | 29 | 42·6 | 35·0 | 39·0 | − 4·1 | 2 | 26 | 6 | 2·73 | ? | * | * | * | * |
| | Markree Castle | 46 | 19 | 40·2 | 29·0 | 34·8 | − 4·3 | 0 | 50 | 6 | 2·05 | + 1·13 | 9·1 | + 1·1 | 18 | + 3 |
| | Armagh | 44 | 23 | 37·5 | 29·9 | 33·9 | − 4·5 | 0 | 57 | 5 | 0·95 | + 0·30 | 9·7 | + 1·2 | 19 | + 3 |
| | Donaghadee | 46 | 28 | 41·1 | 33·1 | 37·3 | − 3·3 | 0 | 33 | 7 | 1·75 | + 1·08 | * | * | * | * |
| 10. IRELAND, S. | Dublin | 47 | 26 | 42·4 | 33·2 | 38·0 | − 3·1 | 1 | 32 | 6 | 1·45 | + 0·91 | 20·2 | + 8·2 | 39 | +16 |
| | Parsonstown | 45 | 22 | 40·4 | 30·4 | 35·6 | − 3·8 | 0 | 45 | 4 | 0·76 | + 0·08 | 15·7 | + 5·5 | 30 | +10 |
| | Kilkenny | 47 | 22 | 42·4 | 29·1 | 36·0 | − 4·4 | 1 | 47 | 5 | 1·39 | + 0·64 | * | * | * | * |
| | Roche's Point | 49 | 30 | 45·6 | 37·7 | 41·8 | − 1·8 | 10 | 19 | 5 | 2·99 | + 1·81 | * | * | * | * |
| | Valencia | 48 | 28 | 44·4 | 36·1 | 40·4 | − 4·6 | 7 | 23 | 7 | 1·64 | + 0·24 | 6·9 | − 3·3 | 13 | − 6 |
| | Killarney | 48 | 25 | 42·3 | 33·0 | 37·8 | − 5·3 | 1 | 33 | 5 | 2·83 | ? | * | * | * | * |
| | Foynes | 47 | 25 | 41·6 | 33·1 | 37·5 | − 3·7 | 0 | 32 | 6 | 1·73 | ? | * | * | * | - |
| CHANNEL ISLANDS | Scilly (St. Mary's) | 55 | 37 | 52·0 | 41·9 | 47·2 | + 0·9 | 37 | 0 | 7 | 1·97 | + 1·12 | 10·5 | ? | 19 | ? |
| | Jersey | 52 | 40 | 49·0 | 43·0 | 46·1 | + 3·0 | 29 | 0 | 7 | 1·67 | + 0·87 | 9·9 | − 4·9 | 17 | − 9 |

Stations marked Ⓜ are in connection with the Royal Meteorological Society, and those marked Ⓢ with the Scottish Meteorological Society.

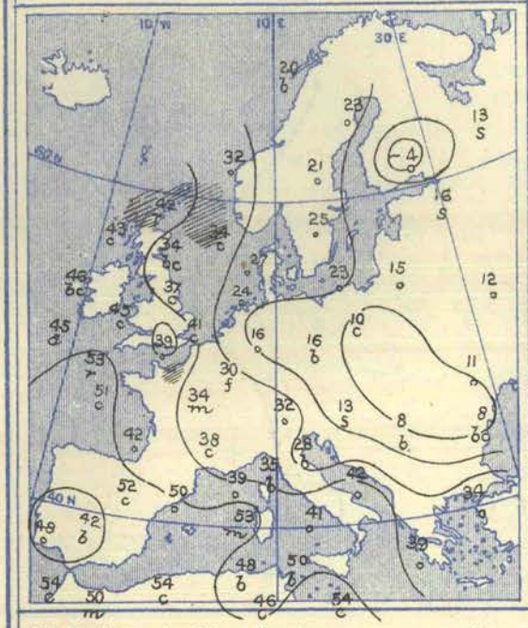
* An Asterisk is inserted in all places for which the information is not usually received.

† The Sunshine values at Braemar and Felixstowe are obtained by Jordan's Photographic Recorder. At all other stations named in this Table Stokes' or somewhat similar Bright Sunshine Recorders are in use. For London the Sunshine values are the means of observations made in the City (Bunhill Row), at the Kew Observatory, and the Wesleyan Training College, Westminster. For additional Reports of Sunshine, see last page.

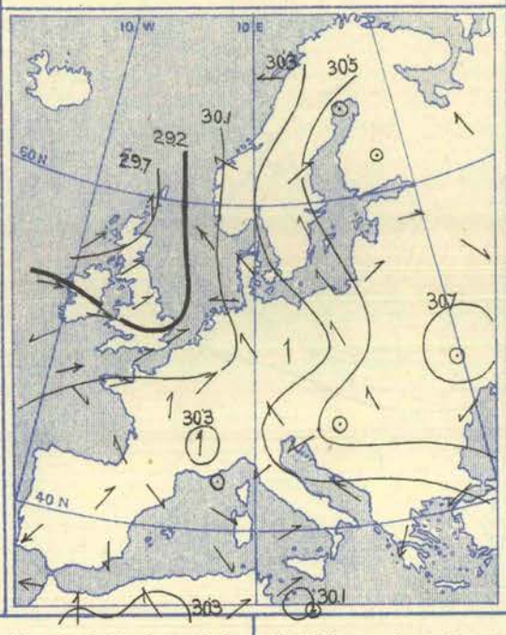
NOTE.—The bright sunshine values entered to Liverpool are recorded at Hoylake.

## Sunday, 24th December.

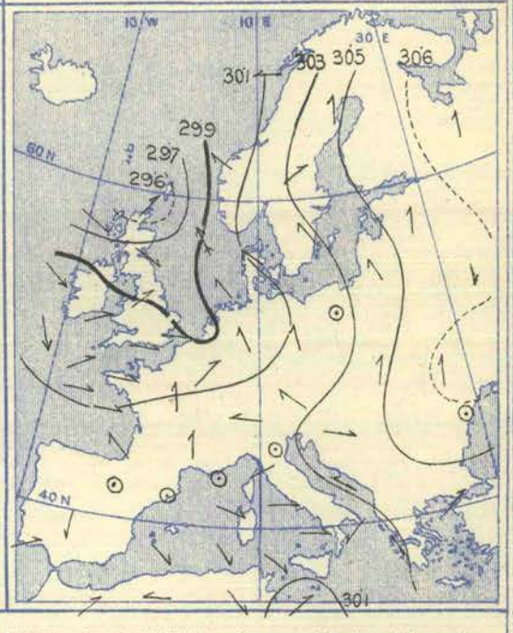
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fair or fine at many of our own northern stations, but dull and unsettled over western and northern Europe generally, with rain on our extreme west and south-west coasts, as well as at Sumburgh Head, Cape Grisnez and the Helder; snow reported at Archangel and St. Petersburg and also at Prague. Fine in most of the southern and south-eastern countries, but with fog in a few places. Rain falling later in nearly all parts of western Europe and snow in several parts of Russia and Germany.

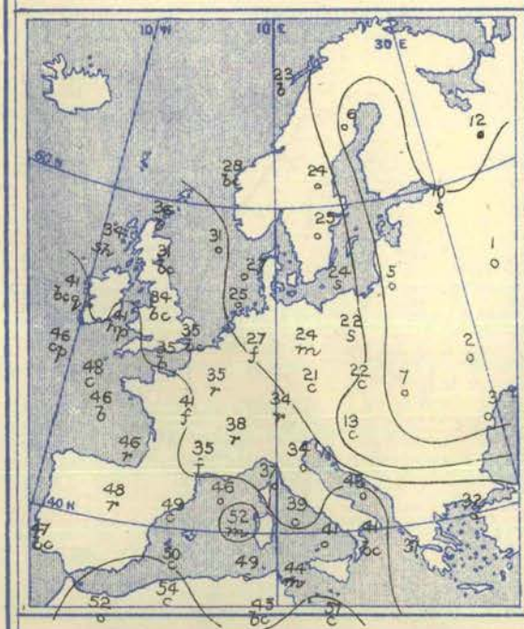
*Temperature* risen in most countries—rapidly in Germany and also over the Gulf of Bothnia. Morning readings highest, 54° at San Fernando, Malta and Algiers, and 53° at Sanguinaire; above 50° at several of the Mediterranean and Spanish coast stations and also over the western parts of the English Channel. Lowest, −4° Fahr. at Knopio, +3° at Nicolaieff, 6° at Buda Pesth and 7° at Cracow; below the freezing point over northern, eastern and central Europe generally. Rising during day to 45° and upwards in most parts of England and Ireland and to 51° at Jersey, exceeding 50° also in the west of France and exceeding 55° at many of the Spanish and Mediterranean stations. Frost occurring in Scotland at night.

*Wind* light to moderate from the Westward or South-Westward over our Islands and the greater part of France, and from the Southward in the Netherlands; moderate from the Eastward or South-Eastward over Denmark, north Germany, Norway and the south of Sweden, calm in Austria; variable in Italy and Russia; Northerly or North-Easterly over the Spanish Peninsula and the extreme south of France. Subsequently veering to the North-Westward in Ireland and the west of Scotland; no important change occurring elsewhere.

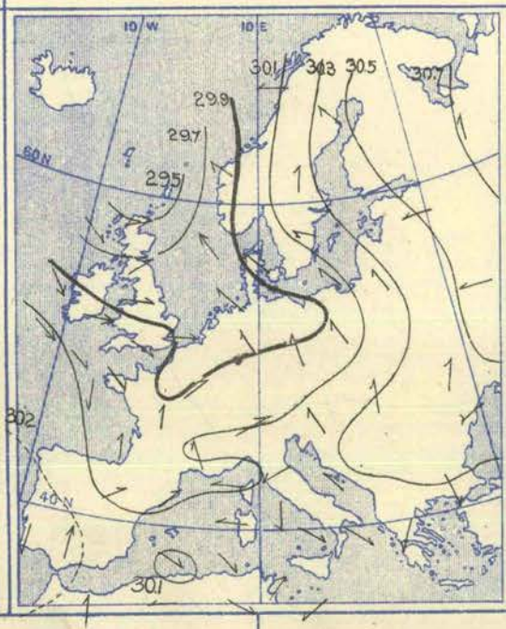
*Barometer* highest, 30·7 ins. and upwards over the southern parts of Russia; 30·2 ins. and upwards in an anticyclone covering the eastern and southern parts of Europe generally. Lowest, 29·6 ins. and less in a depression lying off the north-west of Scotland; shallow secondary disturbances lying respectively off the north-east of England and the south-west of Ireland. Depressions all moving slowly eastwards during day and barometer rising a little on our western coasts.

## Monday, 25th December.

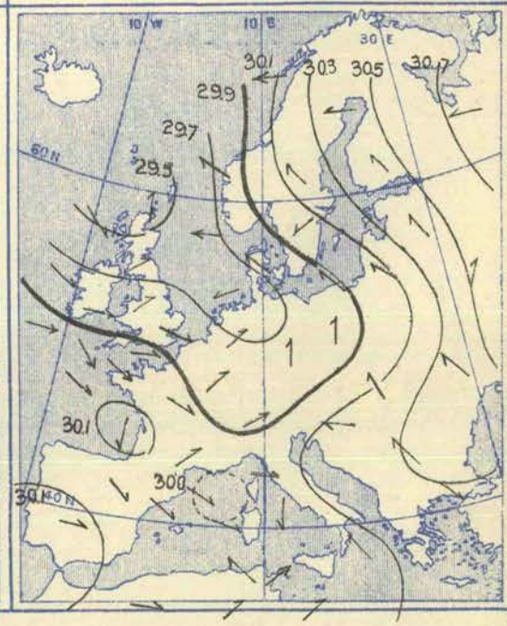
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine over the greater part of our Islands, but hail showers reported at Holyhead, and snow squalls at Stornoway. Fine also in the west of Norway, but dull and unsettled over the Continent as a whole, with fog or rain in several parts of France, Belgium, and south Germany, and snow over the Baltic, the Gulf of Finland and the south of Scandinavia. Showers falling later in many parts of the United Kingdom—heavily in the north-west. Snow reported in Germany and rain over northern Italy.

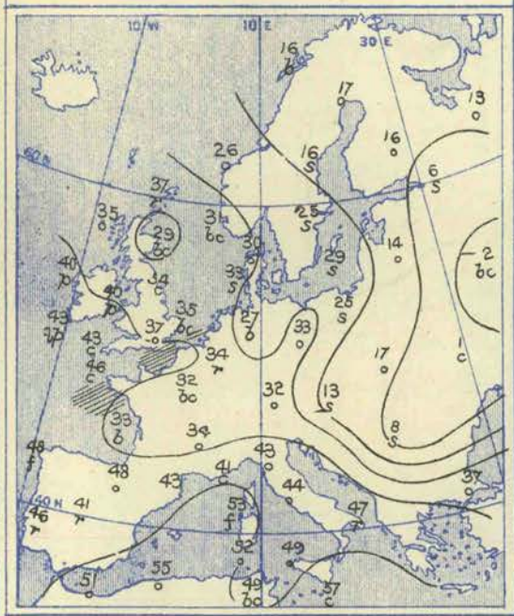
*Temperature* fallen in most countries, but risen in Germany, Austria and Italy. Morning readings highest, 57° at Malta, 54° at Algiers, 52° at Nemours and 50° at Palma; slightly above 45° in the west of France and in the extreme south-west of Ireland. Lowest, 1° at Moscow, 2° at Kiev and 3° at Kharkov and Nicolaieff; below the freezing point over northern and central Europe generally, and also in the north-east of Scotland. Daily maxima below 40° at most of our own northern and eastern stations. Rising to 45° and upwards on some parts of our south and south-west coasts and exceeding 55° at several of the Mediterranean stations. Sharp frost occurring over Great Britain at night.

*Wind* light to fresh from the Westward or North-Westward over our Islands, and from the Northward in the north of France; light from the Southward or South-Westward in other parts of France and also in Germany and Austria; Easterly or South-Easterly in Russia, Denmark and Scandinavia. Variable over southern Europe generally. No important change occurring during day.

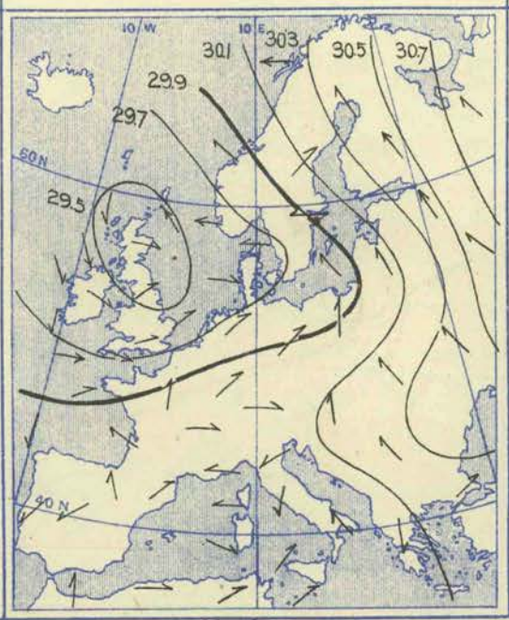
*Barometer* highest, 30·70 ins. at Archangel; 30·2 ins. and upwards in an anticyclone covering the whole of Russia, Austria and the north of Sweden, as well as in another system over the Spanish Peninsula. Lowest, 29·5 ins. and less in a depression off the north of Scotland; 29·8 ins. and less in a secondary system over the southern parts of the North Sea. Former disturbance spreading southwards later; secondary system becoming more clearly defined and moving eastwards to Holstein.

## Tuesday, 26th December.

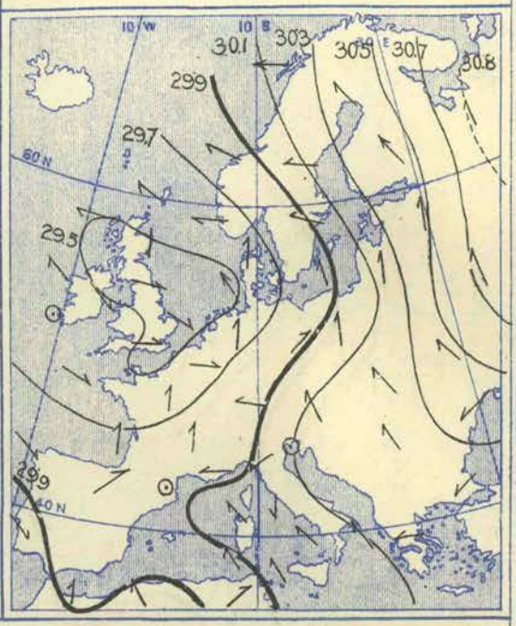
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.



*Weather* in morning fine in the east of Scotland, and also at several of the French stations, but cloudy and unsettled over Europe as a whole, with rain in several parts of our Islands and their neighbourhood. Snow falling in many parts of northern and central Europe. Rain or snow falling later over nearly the whole of Europe,—heavily over the Channel Islands, the Netherlands and the north of France, (as much as 2·3 ins. at Cape Gris Nez and 2·2 ins. at Boulogne).

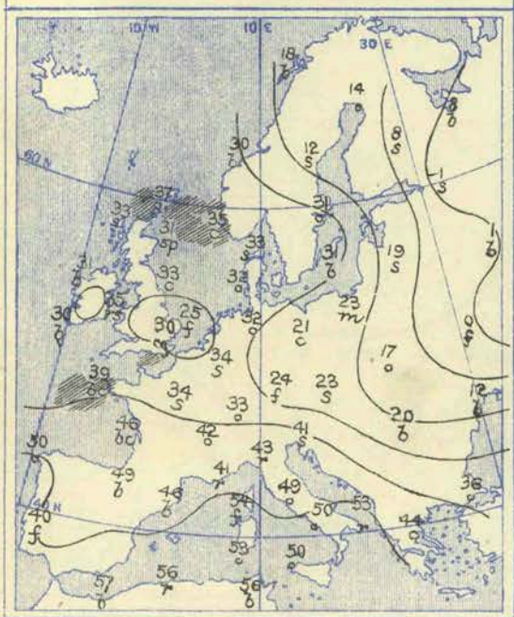
*Temperature* risen over England and the neighbouring parts of the Continent, as well as in Austria and Italy, fallen elsewhere. Morning readings highest, 57° at Malta, 55° at Algiers and 53° at Sanguinaires; above 50° at several of the Mediterranean stations. Lowest, −2° Fahr. at Moscow, +1° at Kiev, 6° at St. Petersburg, 8° at Hermanstadt and 9° at Kharkov; below the freezing point over northern and central Europe generally, and also in Scotland. Daily maxima below 40° at most of our own northern and eastern stations, thermometer at Leith not exceeding 32°; rising to between 45° and 48° over the English Channel. Sharp frost occurring over our Islands at night.

*Wind* moderate to fresh from the North-Westward on our western coasts and from the Westward over the Channel and north of France, light to moderate from the South-Westward or Westward over the eastern and central parts of Great Britain. Southerly over the Netherlands, South-Westerly over north Germany and Denmark, Easterly or South-Easterly over Russia and Scandinavia; strong in force on the Norwegian coasts and blowing a gale at Helsingfors. Variable in Italy, Easterly or South-Easterly over the southern parts of France, North-Easterly in Spain. No important change occurring during day.

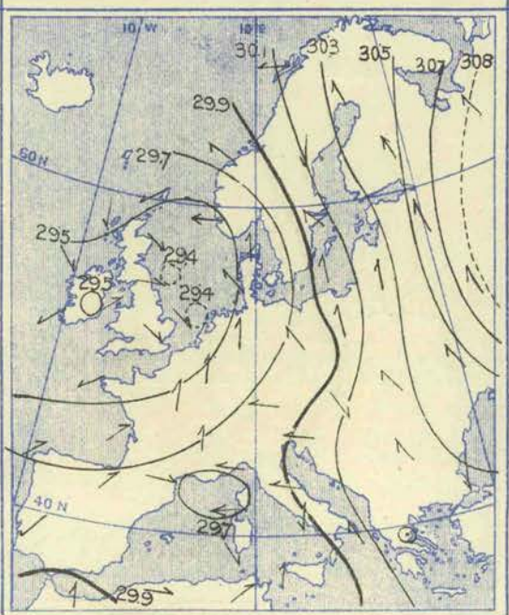
*Barometer* highest, 30·7 ins. and upwards over northern Russia, 30·1 ins. and upwards in an anticyclone lying over the whole of Russia, Austria and the northern parts of Scandinavia; 30·0 ins. and upwards in another system over Spain and Algeria. Lowest, 29·5 ins. and less in a large depression over the northern parts of Great Britain. Depression subsequently spreading over nearly the whole of Great Britain and the North Sea; barometer falling over western Europe generally.

## Wednesday, 27th December.

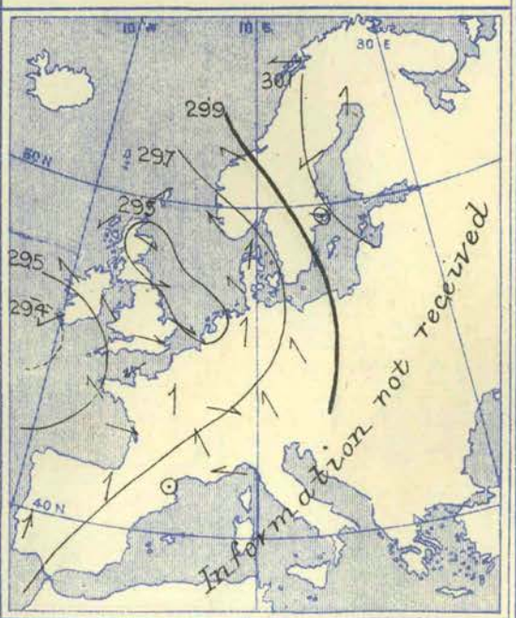
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.




*Weather* in morning dull over Europe as a whole, with fog in many parts of England, and rain over France and northern Italy. Snow reported on some parts of our own north and north-west coasts, as well as over the Netherlands and in many parts of Sweden, Denmark, Russia, and Austria. Fine in Ireland, and also on the west coasts of France and Norway. Snow falling during day in the north of Scotland, and rain setting in during night on our own south-west coasts. Thunder and lightning occurring at Stornoway, and thunder only at Nairn.

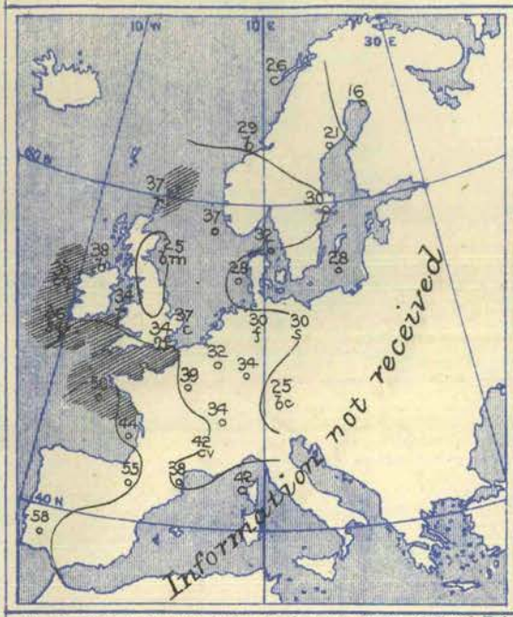
*Temperature* risen in the northern parts of our Islands and the Continent, as well as in France and Austria; fallen elsewhere. Morning readings highest, 57° at Oran, and 56° at Algiers and La Calle; above 50° at several of the Mediterranean stations. Lowest, −8° Fahr. at Archangel, −1° at St. Petersburg, and 0° zero at Kiev; considerably below the freezing point over northern and central Europe generally, and also over the central parts of England and Ireland. Daily maxima below 35° at several of our eastern and central stations; thermometer at Loughborough not exceeding 28°. Sharp frost occurring over Great Britain at night.

*Wind* light from the North-Eastward in the south of our Islands; variable on our north-west coasts; light from the Westward or North-Westward over the eastern and central parts of Great Britain. Southerly or South-Westerly over France and the Netherlands; South-Easterly over Germany, Denmark, Russia, and Sweden. Easterly in Norway. Variable over Italy; Easterly in the extreme south of France; no important change occurring over western Europe during day.

*Barometer* highest, 30·8 ins. and upwards over northern and central Russia; 30·1 ins. and upwards in an anticyclone lying over eastern Europe generally. Lowest, 29·5 ins. and less in a large shallow depression covering the whole of our Islands, the North Sea, the Netherlands, and the north of France. Depression filling up gradually during day, but new disturbance beginning to approach the south of Ireland in evening

## Thursday, 28th December.

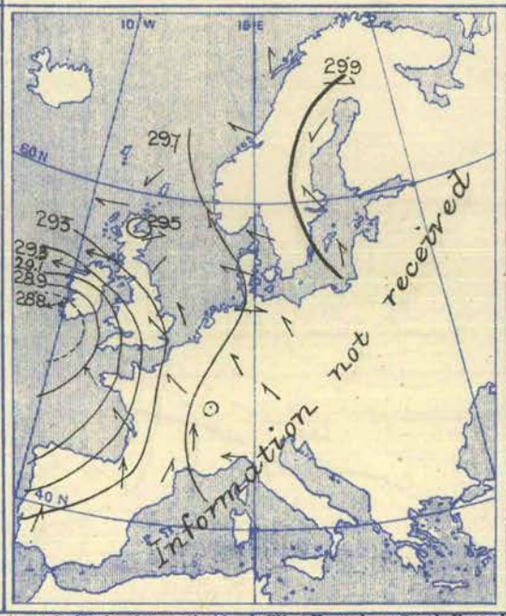
### Temperature and Weather. 8 a.m.



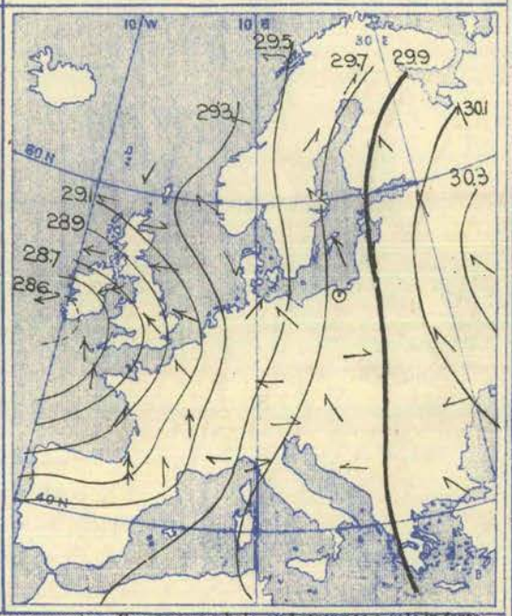

*Weather* in morning fair or fine on the east coasts of Great Britain and also in the north of Ireland. Cloudy or dull in nearly all other parts of western Europe (reports from the eastern and southern countries not received) with rain or sleet at several of our own western and southern stations. Rain reported also in the Shetlands and snow at Karlstad and Berlin. Rain falling later over the whole of our Islands, France and the Netherlands; thunderstorm occurring at Roche's Point, and lightning seen at night both there and at Jersey.

*Temperature* risen over western Europe generally. Morning readings highest, 58° at Lisbon, 55° at Biarritz, 52° at Scilly, and 51° at Lorient; above 45° on many parts of our own southern coasts. Lowest, (1) 16° at Haparanda, 21° at Hernösand, and 26° at Bodö; (2) 23° at Leith and 25° at Aberdeen and Loughborough; (3) 25° at Munich. Daily maxima below 40° on some parts of our own north and north-west coasts, but thermometer exceeding 45° in the south and south-west, and reaching 50° at Portland Bill; exceeding 50° in the west and south of France, and touching 61° at Lisbon.

### Barometer and Wind. 8 a.m.




### Barometer and Wind. 6 p.m.

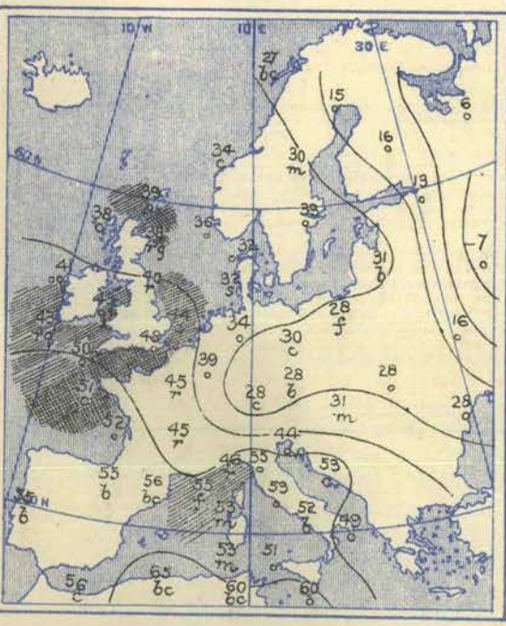


*Wind* Easterly or South-Easterly over western Europe as a whole, and strong to a gale in force in the south-west of our Islands. Light from the Westward or South-Westward on the north-east coasts of Great Britain and also in the north of Scandinavia; strong from South-South-West at Lisbon. Subsequently increasing to a gale from the Eastward or South-Eastward on most parts of the English and Irish coasts, and from the Southward or South-Westward in the west of France.

*Barometer* highest, 29·9 ins. and upwards in Sweden; 29·8 ins. and upwards over Switzerland and south Germany. Lowest, 28·8 ins. and less in a deep depression with its centre lying to the south-westward of Ireland; gradients steep over the west and south of our Islands generally. Depression advancing slowly eastwards during day and barometer falling briskly in most parts of the United Kingdom.

## Friday, 29th December.

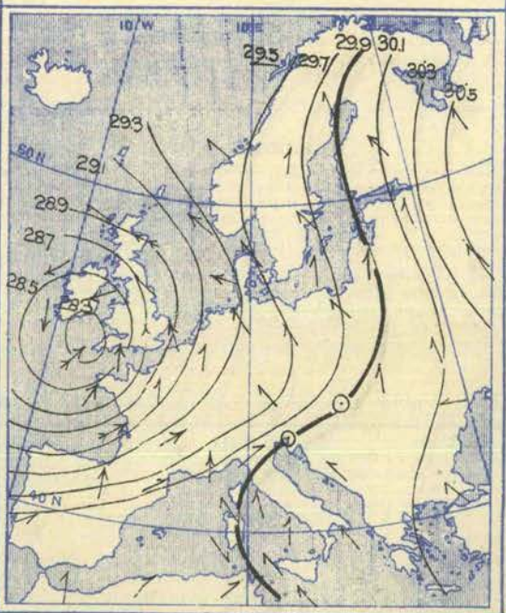
### Temperature and Weather. 8 a.m.



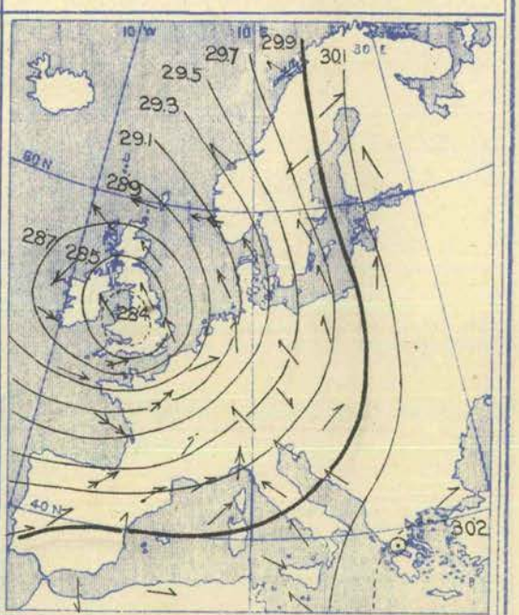
*Weather* in morning dull and squally over western and northern Europe generally, with rain in many parts of our Islands, France and western Germany, and snow at Fanö, Hangö, and Helsingfors. Fine over the Spanish Peninsula and southern Italy. Rain or snow falling later over nearly the whole of Europe, and a thunderstorm occurring at Lyons.

*Temperature* risen in most countries, quickly over Great Britain. Morning readings highest 65° at Algiers, 60° at Malta and La Calle, and 58° at Oran, above 50° at most of the Mediterranean and Adriatic stations and also in the west of France. Lowest −7° Fahr. at Moscow, +6° at Archangel, 13° at St. Petersburg, and 15° at Haparanda and Uleaborg; below the freezing point over northern and central Europe generally. Rising during day to 45° and upwards in most parts of the United Kingdom, to 50° in London and at Dungeness, and to 52° at Jersey. Exceeding 60° in several parts of Spain and Italy, and reaching 73° at Palermo.

### Barometer and Wind. 8 a.m.



### Barometer and Wind. 6 p.m.

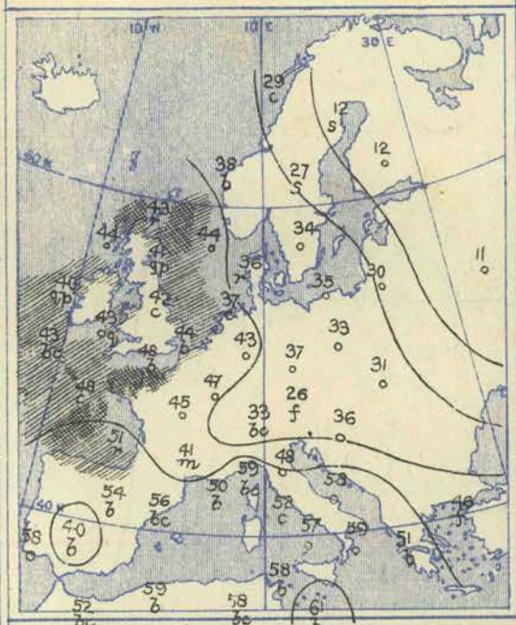


*Wind* strong to a gale from the Southward or South-Westward over France and the south of England, moderate to fresh from the South-Eastward or Eastward over the east of England and also over Germany and the eastern shores of the North Sea, Easterly in Scotland, with a gale at Aberdeen; strong from the North-Eastward or Northward in Ireland. Light from the Southward or South-Eastward in Italy, subsequently veering to the Westward over the Channel and the Bay of Biscay, and gale increasing in strength. Easterly gale springing up in the south of Norway.

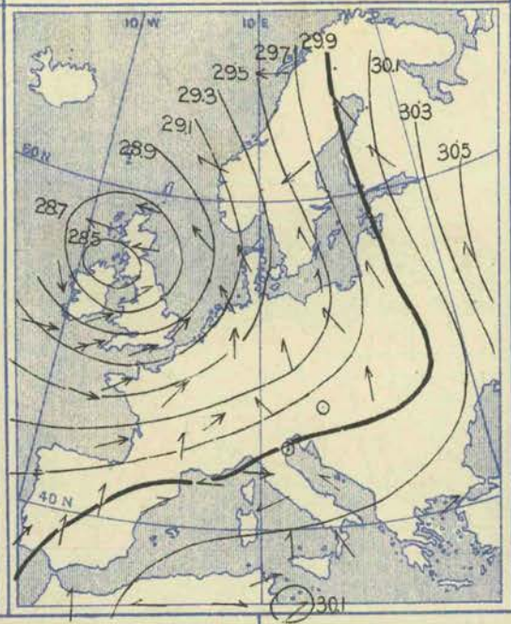
*Barometer* highest 30·5 ins. and upwards over the central parts of Russia. Lowest 28·3 ins. and less in a deep depression with its centre near the mouth of the Bristol Channel. Depression subsequently moving north-eastwards to north Wales, barometer rising in the south of our Islands and over France.

## Saturday, 30th December.

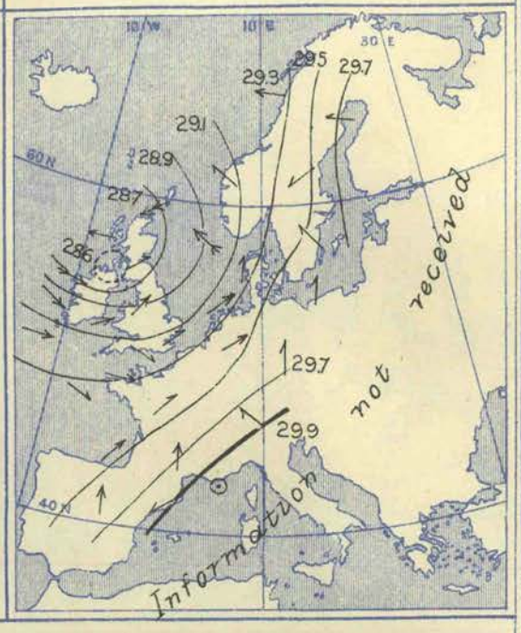
### Temperature and Weather. 8 a.m.



### Barometer and Wind. 8 a.m.



### 6 p.m.




*Weather* in morning fine over the southern parts of our Islands, as well as over the Netherlands, the Spanish Peninsula, northern Italy and the extreme south of France. Cloudy or dull in nearly all other parts of Europe, with showers in Scotland and the north of Ireland, and steady rain at Skagen and Rochefort; snow falling in Sweden and Finland. Rain falling later in most parts of western Europe—heavily in the north of Scotland.

*Temperature* changed very irregularly in our Islands, fallen in France, risen in most other parts of the Continent. Morning readings highest, 61° at Malta and 59° at Brindisi and Algiers; above 50° at most of the Mediterranean and Spanish coast stations. Lowest, 11° at Moscow, 12° at Uleaborg and Kuopio, below the freezing point over northern and eastern Europe generally. Rising during day to 45° and upwards in many parts of the United Kingdom, and to 50° in London and at Portland Bill; exceeding 55° in in the south of France, and reaching 63° at Biarritz. Frost occurring at night at some of the English and Irish stations.

*Wind* strong from the N... Westward in Ireland, and from the Westward or South-Westward over England and the north of France, with a gale in the English and Bristol Channels. Southerly over Spain, the central and southern parts of France and the Netherlands; South-Easterly in Germany, Denmark, Russia and the south of Scandinavia; Easterly in the west of Norway and also in the north of Scotland. Variable over Italy and the Mediterranean. No important change occurring over western Europe during day.

*Barometer* highest, 30·5 ins. and upwards in an anticyclone over central Russia. Lowest, 28·5 ins. and less in a well-marked depression with its centre over the west of Scotland, depression moving very slowly north-eastwards during day; shallow secondary disturbance appearing over Bay of Biscay in evening.

**Explanation of Charts.**—In the two right-hand Charts the height of the barometer is expressed by isobars, the pressure corresponding to each line being given in inches and tenths. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force is indicated thus: = a heavy gale = a gale; = a fresh to strong breeze; = a light to moderate breeze; and = a calm. In the left-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by isotherms, and the readings at selected stations are given in degrees Fahrenheit. Diagonal lines = rough sea, the shading being proportional to the disturbance.

N.B.—The Charts for 8 a.m. are prepared from observations made at 8 a.m. in the British Islands, Germany, Sweden, and Norway, and 7 a.m. in France, Algeria, Italy, Austria and Russia; that for 6 p.m. is prepared from observations made at 6 p.m. in the British Islands and France, 7 p.m. in Algeria, 8 p.m. in Sweden and Norway, Germany, and Austria, and 9 p.m. in Russia, Belgium, and Italy. The time indicated in each case is the standard time for each country.

### GENERAL NOTES.

During the early part of last week two high pressure areas were in existence—one a system of considerable size and height over northern and central Russia, the other, of less importance over the Spanish Peninsula. Over our Islands the weather was at first fine, with light to moderate breezes from the Westward but after the 25th the conditions over western Europe generally were influenced by a large shallow depression which spread from the northward over the whole of the United Kingdom and the North Sea. The wind consequently became variable with fog in many districts, and rain, sleet or snow over the western and central countries generally. In the north of France the rainfall of the 26th was exceedingly heavy.

After the 26th the high pressure system over Spain gave way, and during the three last days of the week the weather in the entire western half of Europe was affected by a deep depression (with minimum readings below 28·3 ins.) the centre of which advanced slowly eastwards to our south-west coasts on the 28th and afterwards moved northwards to the west, and finally to the north of Scotland. During the progress of this disturbance fresh to strong gales from various quarters were reported over the whole of our Islands and their neighbourhood, at first from the Eastward or South-Eastward, and afterwards from the South-Westward or Westward with heavy rain in many districts especially in the south-west on the 26th. Thunder and lightning occurred in the north of Scotland on the 27th, and on our south-west coasts generally on the 28th. At the close of the week the depression in the north was steadily filling up, and the weather over England showed considerable signs of improvement.

### BRIGHT SUNSHINE Values for the Week, in addition to those found on page 308.

| STATIONS | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. | STATIONS. | No. of Hours recorded. | Difference from the Mean for the Week. | Percentage of possible Duration. | Difference from the Mean for the Week. |
|---|---|---|---|---|---|---|---|---|---|
| DEERNESS (Orkney Islands) | 5·7 | ? | 14 | ? | WATERGATE (Emsworth) | 13·9 | ? | 26 | ? |
| STRATHPEFFER SPA | 3·3 | − 3·7 | 7 | − 9 | BRIGHTON | 12·0 | + 0·5 | 22 | + 1 |
| EDINBURGH | 7·3 | + 1·5 | 15 | + 4 | WORTHING | 12·8 | ? | 24 | ? |
| MORPETH | | ? | | ? | BOGNOR | 13·3* | ? | 25* | ? |
| NEWCASTLE-ON-TYNE | 13·8 | ? | 28 | ? | EASTBOURNE | 8·6 | − 4·2 | 16 | − 7 |
| OSWALDKIRK (Yorkshire) | 13·4 | + 5·3 | 26 | +10 | VENTNOR HOSPITAL | 10·1 | ? | 19 | ? |
| YORK | | | | | SOUTHPORT | 6·6 | ? | 13 | ? |
| LOWESTOFT | 10·8 | ? | 20 | ? | COLWYN BAY | | ? | | ? |
| HOLLESLEY BAY | 17·5 | ? | 33 | ? | RHYL | 11·4* | ? | 22* | |
| SHEFFIELD | 11·0 | ? | 21 | ? | ABERDOVEY | 17·9* | ? | 34* | ? |
| WORKSOP | 9·6 | + 1·9 | 18 | + 4 | TENBY | 12·2 | + 1·9 | 23 | + 3 |
| THURCASTON (Leicestershire) | 9·7 | + 2·7 | 19 | + 6 | NEWQUAY | 13·2 | + 0·9 | 24 | + 3 |
| MARGATE | 9·1 | − 1·5 | 17 | − 2 | TORQUAY | 17·7 | + 5·7 | 32 | +10 |
| WESTBOURNE (Emsworth) | 15·6* | + 3·8 | 29* | + 8 | GUERNSEY | 10·6* | − 0·2 | 19* | 0 |

* The values at Westbourne, Bognor, Rhyl, Aberdovey, and Guernsey are obtained by Jordan's Photographic Recorder.

(OFFICIAL COPY.)

# QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1899.

VOL. XVI. APPENDIX I.] *New Series.* FIRST QUARTER—JANUARY TO MARCH. [*Price 4d.*

## TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE FIRST QUARTER OF THE THIRTY-FOUR YEARS, 1866 TO 1899.

### RAINFALL (in Inches).

| YEARS. | 0. SCOTLAND, N. | | Principal Wheat-producing Districts. | | | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | | | CHANNEL ISLANDS. | | MEANS FOR THE BRITISH ISLANDS GENERALLY. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1. SCOTLAND, E. | | 2. ENGLAND, N.E. | | 3. ENGLAND, E. | | 4. MIDLAND COUNTIES. | | 5. ENGLAND, S. | | MEANS FOR WHEAT-PRODUCING DISTRICTS. | | 6. SCOTLAND, W. | | 7. ENGLAND, N.W. | | 8. ENGLAND, S.W. | | 9. IRELAND, N. | | 10. IRELAND, S. | | MEANS FOR THE GRAZING, &C. DISTRICTS. | | | | | |
| | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. |
| Means for 5 years, 1866-70 | — | 12·6 | — | 9·6 | — | 5·4 | — | 5·7 | — | 6·9 | — | 8·5 | — | 7·2 | — | 12·6 | — | 11·8 | — | 13·7 | — | 11·8 | — | 11·0 | — | 12·2 | — | — | — | 9·7 |
| Means for 5 years, 1871-75 | — | 9·1 | — | 7·8 | — | 4·9 | — | 4·4 | — | 6·6 | — | 7·1 | — | 6·2 | — | 11·1 | — | 10·4 | — | 13·7 | — | 9·5 | — | 10·5 | — | 11·0 | — | — | — | 8·6 |
| Means for 5 years, 1876-80 | — | 9·5 | — | 7·2 | — | 5·3 | — | 5·7 | — | 6·2 | — | 7·2 | — | 6·3 | — | 11·2 | — | 9·5 | — | 9·9 | — | 9·2 | — | 10·0 | — | 10·0 | — | — | — | 8·2 |
| Means for 5 years, 1881-85 | 65 | 9·9 | 49 | 6·2 | 45 | 5·2 | 44 | 5·1 | 45 | 6·4 | 43 | 6·4 | 45 | 5·9 | 58 | 12·5 | 50 | 8·8 | 53 | 9·7 | 61 | 9·4 | 58 | 11·9 | 56 | 10·5 | 57 | 8·2 | 51 | 8·2 |
| Means for 5 years, 1886-90 | 66 | 12·2 | 52 | 6·2 | 47 | 5·2 | 47 | 4·7 | 43 | 5·2 | 44 | 5·4 | 47 | 5·3 | 53 | 10·7 | 50 | 6·9 | 49 | 8·3 | 56 | 8·4 | 50 | 9·5 | 52 | 8·8 | 57 | 7·1 | 50 | 7·1 |
| 1891 | 65 | 14·7 | 38 | 5·1 | 43 | 3·7 | 43 | 3·8 | 37 | 4·1 | 38 | 5·8 | 40 | 4·5 | 47 | 9·2 | 35 | 4·4 | 38 | 6·8 | 49 | 5·5 | 42 | 5·6 | 42 | 6·3 | 43 | 6·2 | 41 | 5·4 |
| 1892 | 63 | 11·2 | 46 | 5·5 | 47 | 4·4 | 49 | 4·0 | 44 | 4·0 | 38 | 3·7 | 45 | 4·3 | 47 | 8·0 | 46 | 6·3 | 47 | 6·4 | 49 | 5·9 | 45 | 7·6 | 47 | 6·8 | 52 | 6·9 | 47 | 5·6 |
| 1893 | 65 | 12·8 | 51 | 5·9 | 44 | 4·5 | 49 | 5·2 | 48 | 5·0 | 48 | 5·9 | 48 | 5·3 | 57 | 10·0 | 49 | 6·4 | 49 | 8·7 | 59 | 7·8 | 50 | 8·7 | 53 | 8·3 | 56 | 7·3 | 52 | 6·8 |
| 1894 | 68 | 21·1 | 56 | 11·0 | 51 | 5·4 | 47 | 4·2 | 54 | 5·8 | 49 | 6·3 | 51 | 6·5 | 64 | 18·6 | 56 | 9·9 | 56 | 10·5 | 64 | 12·3 | 61 | 10·9 | 60 | 12·4 | 56 | 7·7 | 56 | 9·5 |
| 1895 | 59 | 9·8 | 48 | 6·4 | 58 | 7·5 | 52 | 5·6 | 42 | 5·4 | 41 | 4·7 | 48 | 5·9 | 48 | 6·7 | 48 | 6·7 | 46 | 8·1 | 56 | 7·7 | 48 | 9·5 | 49 | 7·7 | 55 | 7·3 | 49 | 6·8 |
| Means for 5 years, 1891-95 | 64 | 13·9 | 48 | 6·8 | 49 | 5·1 | 48 | 4·6 | 45 | 4·9 | 43 | 5·3 | 47 | 5·3 | 53 | 10·5 | 47 | 6·7 | 47 | 8·1 | 55 | 7·8 | 49 | 8·5 | 50 | 8·3 | 52 | 7·1 | 49 | 6·8 |
| 1896 | 68 | 17·8 | 50 | 4·8 | 39 | 4·1 | 47 | 4·9 | 45 | 4·3 | 42 | 4·4 | 45 | 4·5 | 61 | 12·1 | 53 | 8·3 | 50 | 6·9 | 56 | 9·2 | 51 | 8·8 | 54 | 9·1 | 53 | 4·9 | 50 | 6·8 |
| 1897 | 65 | 11·0 | 57 | 6·9 | 59 | 6·4 | 57 | 6·9 | 54 | 7·9 | 52 | 9·2 | 56 | 7·5 | 58 | 11·0 | 61 | 7·9 | 65 | 13·0 | 66 | 9·6 | 61 | 11·8 | 62 | 10·7 | 70 | 11·6 | 59 | 9·1 |
| 1898 | 77 | 18·7 | 52 | 4·8 | 44 | 3·4 | 41 | 3·5 | 39 | 2·9 | 37 | 3·5 | 43 | 3·6 | 62 | 10·5 | 50 | 7·3 | 48 | 6·0 | 61 | 7·8 | 44 | 6·6 | 53 | 7·6 | 56 | 4·4 | 48 | 5·6 |
| 1899 | 60 | 13·7 | 53 | 8·4 | 48 | 5·3 | 46 | 4·6 | 44 | 6·8 | 38 | 5·9 | 46 | 6·2 | 57 | 13·1 | 51 | 8·9 | 49 | 12·5 | 62 | 8·9 | 51 | 12·5 | 54 | 11·2 | 48 | 8·1 | 50 | 8·7 |
| Means for 34 years, 1866-99 | — | 11·7 | — | 7·2 | — | 5·1 | — | 5·0 | — | 6·0 | — | 6·6 | — | 6·0 | — | 11·5 | — | 8·9 | — | 10·5 | — | 9·3 | — | 10·2 | — | 10·1 | — | — | — | 8·1 |

### MEAN TEMPERATURE (in Degrees Fahrenheit).

| YEARS. | 0. SCOTLAND, N. | Principal Wheat-producing Districts. | | | | | | Principal Grazing, &c. Districts. | | | | | | CHANNEL ISLANDS. | MEANS FOR THE BRITISH ISLANDS GENERALLY. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1. SCOTLAND, E. | 2. ENGLAND, N.E. | 3. ENGLAND, E. | 4. MIDLAND COUNTIES. | 5. ENGLAND, S. | MEANS FOR WHEAT-PRODUCING DISTRICTS. | 6. SCOTLAND, W. | 7. ENGLAND, N.W. | 8. ENGLAND, S.W. | 9. IRELAND, N. | 10. IRELAND, S. | MEANS FOR THE GRAZING, &C. DISTRICTS. | | |
| Means for 5 years, 1866-70 | 38°8 | 39°1 | 38°9 | 39°9 | 39°9 | 40°7 | 39°7 | 40°1 | 40°5 | 43°1 | 40°6 | 42°1 | 41°3 | — | 40°5 |
| Means for 5 years, 1871-75 | 40·2 | 40·0 | 39·7 | 39·9 | 40·5 | 41·2 | 40·3 | 40·8 | 41·6 | 44·0 | 41·6 | 43·7 | 42·3 | — | 41·3 |
| Means for 5 years, 1876-80 | 38·6 | 38·2 | 39·2 | 39·4 | 39·8 | 40·6 | 39·4 | 39·9 | 40·2 | 43·2 | 40·8 | 43·6 | 41·5 | — | 40·5 |
| Means for 5 years, 1881-85 | 38·8 | 38·9 | 39·4 | 39·8 | 39·9 | 41·4 | 39·9 | 40·2 | 40·5 | 42·7 | 41·3 | 43·1 | 41·6 | 44·9 | 44·8 |
| Means for 5 years, 1886-90 | 38·1 | 38·0 | 38·3 | 37·4 | 37·8 | 38·8 | 38·1 | 39·3 | 38·9 | 40·2 | 40·5 | 41·8 | 40·1 | 43·2 | 39·1 |
| 1891 | 38·4 | 38·0 | 37·9 | 37·4 | 38·0 | 38·4 | 37·9 | 39·6 | 39·5 | 40·2 | 40·8 | 42·3 | 40·5 | 43·1 | 39·2 |
| 1892 | 36·3 | 36·1 | 36·9 | 36·3 | 36·6 | 38·3 | 36·8 | 37·9 | 37·9 | 39·7 | 39·2 | 40·3 | 39·0 | 43·0 | 37·9 |
| 1893 | 38·8 | 38·8 | 40·2 | 39·8 | 40·3 | 41·3 | 40·1 | 40·7 | 41·2 | 42·8 | 42·2 | 43·8 | 42·1 | 46·0 | 41·1 |
| 1894 | 39·2 | 38·8 | 39·8 | 40·0 | 40·4 | 41·8 | 40·2 | 41·0 | 42·0 | 42·7 | 41·8 | 43·6 | 42·2 | 45·5 | 41·2 |
| 1895 | 34·3 | 32·5 | 34·9 | 34·4 | 33·6 | 35·3 | 34·1 | 34·8 | 35·0 | 36·4 | 36·5 | 38·4 | 36·2 | 39·9 | 35·2 |
| Means for 5 years, 1891-95 | 37·4 | 36·8 | 37·9 | 37·6 | 37·8 | 39·0 | 37·8 | 38·8 | 39·1 | 40·4 | 40·1 | 41·7 | 40·0 | 43·5 | 38·9 |
| 1896 | 40·9 | 40·4 | 41·2 | 40·9 | 41·4 | 42·7 | 41·3 | 42·3 | 42·5 | 43·9 | 43·4 | 45·5 | 43·5 | 46·7 | 42·4 |
| 1897 | 37·5 | 37·4 | 39·4 | 39·8 | 39·8 | 41·7 | 39·6 | 39·5 | 40·4 | 42·5 | 40·6 | 42·8 | 41·2 | 45·7 | 40·4 |
| 1898 | 40·1 | 40·3 | 41·1 | 40·5 | 40·7 | 42·2 | 41·0 | 42·0 | 42·1 | 43·0 | 42·7 | 44·3 | 42·8 | 45·8 | 41·9 |
| 1899 | 38·4 | 38·0 | 40·3 | 41·1 | 40·7 | 42·7 | 40·6 | 40·6 | 41·8 | 43·4 | 41·7 | 43·8 | 42·3 | 46·8 | 41·5 |
| Means for 34 years, 1866-99 | 38·7 | 38·6 | 39·1 | 39·2 | 39·4 | 40·5 | 39·4 | 40·0 | 40·2 | 42·4 | 41·0 | 42·9 | 41·3 | — | 40·4 |

## TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE THIRTY-FOUR YEARS, 1866 TO 1899.

| | | Wheat Districts. | Grazing, &c. Districts. | Generally. |
|---|---|---|---|---|
| **Rainfall** | Driest | Ins. 3·6 in 1898 | Ins. 6·3 in 1891 | Ins. 5·4 in 1891 |
| | Wettest | 9·0 in 1872 | 14·9 in 1872 | 12·0 in 1872 |
| **Temperature** | Coldest | °<br>34·1 in 1895 | °<br>36·2 in 1895 | °<br>35·2 in 1895 |
| | Warmest | 42·8 in 1882 | 44·6 in 1882 | 43·7 in 1882 |

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TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE FIRST QUARTER, 1899.

| YEAR AND MONTHS. | Principal Wheat-producing Districts. | | | | | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | | | Channel Islands. | | Means for the British Islands generally. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0. Scotland, N. | | 1. Scotland, E. | | 2. England, N.E. | | 3. England, E. | | 4. Midland Counties. | | 5. England, S. | | Means for Wheat-producing Districts. | | 6. Scotland, W. | | 7. England, N.W. | | 8. England, S.W. | | 9. Ireland, N. | | 10. Ireland, S. | | Means for the Grazing, &c. Districts. | | | | | |
| | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. |
| **Rainfall.—Numbers of Days with Rain.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. - | 20 | 20 | 21 | 21 | 18 | 18 | 19 | 19 | 20 | 20 | 19 | 19 | 19 | 19 | 22 | 22 | 20 | 20 | 21 | 21 | 22 | 22 | 22 | 22 | 21 | 21 | 21 | 21 | 20 | 20 |
| Feb. - | 15 | 35 | 14 | 35 | 15 | 33 | 14 | 33 | 14 | 34 | 13 | 32 | 14 | 33 | 15 | 37 | 16 | 36 | 14 | 35 | 19 | 41 | 17 | 39 | 16 | 37 | 14 | 35 | 15 | 35 |
| Mar. - | 25 | 60 | 18 | 53 | 15 | 48 | 13 | 46 | 10 | 44 | 6 | 38 | 12 | 45 | 20 | 57 | 15 | 51 | 14 | 49 | 21 | 62 | 12 | 51 | 16 | 53 | 13 | 48 | 14 | 49 |
| **Rainfall.—Amounts in Inches.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. - | 5·41 | 5·41 | 3·66 | 3·66 | 2·24 | 2·24 | 2·04 | 2·04 | 3·36 | 3·36 | 2·85 | 2·85 | 2·83 | 2·83 | 6·05 | 6·05 | 4·77 | 4·77 | 6·75 | 6·75 | 3·88 | 3·88 | 5·74 | 5·74 | 5·44 | 5·44 | 4·68 | 4·68 | 4·14 | 4·15 |
| Feb. - | 2·68 | 8·09 | 2·18 | 5·84 | 1·35 | 3·59 | 1·40 | 3·44 | 2·49 | 5·85 | 2·50 | 5·35 | 1·98 | 4·81 | 2·94 | 8·99 | 2·12 | 6·89 | 4·45 | 11·20 | 2·55 | 6·43 | 4·68 | 10·42 | 3·35 | 8·79 | 2·61 | 7·29 | 2·67 | 6·83 |
| Mar. - | 5·63 | 13·72 | 2·54 | 8·38 | 1·73 | 5·32 | 1·12 | 4·56 | 0·98 | 6·83 | 0·58 | 5·93 | 1·39 | 6·20 | 4·08 | 13·07 | 2·05 | 8·94 | 1·27 | 12·47 | 2·46 | 8·89 | 2·10 | 12·52 | 2·39 | 11·18 | 0·77 | 8·06 | 1·89 | 8·72 |
| **Accumulated Heat.—Day Degrees above 42° F.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. - | 5 | 5 | 4 | 4 | 44 | 44 | 79 | 79 | 72 | 72 | 99 | 99 | 60 | 60 | 40 | 40 | 67 | 67 | 102 | 102 | 47 | 47 | 102 | 102 | 72 | 72 | 180 | 180 | 66 | 66 |
| Feb. - | 39 | 44 | 38 | 42 | 63 | 107 | 71 | 150 | 81 | 153 | 98 | 197 | 70 | 130 | 44 | 84 | 74 | 141 | 102 | 204 | 61 | 108 | 75 | 177 | 71 | 143 | 151 | 331 | 71 | 137 |
| Mar. - | 72 | 116 | 107 | 149 | 122 | 229 | 127 | 277 | 142 | 295 | 135 | 332 | 127 | 257 | 100 | 184 | 113 | 254 | 143 | 347 | 143 | 251 | 192 | 369 | 138 | 281 | 190 | 521 | 133 | 270 |
| **Accumulated Heat.—Day Degrees below 42° F.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. - | 158 | 158 | 185 | 185 | 108 | 108 | 83 | 83 | 103 | 103 | 43 | 43 | 104 | 104 | 110 | 110 | 76 | 76 | 41 | 41 | 108 | 108 | 64 | 64 | 80 | 80 | 6 | 6 | 92 | 92 |
| Feb. - | 140 | 298 | 153 | 338 | 103 | 211 | 93 | 176 | 116 | 219 | 60 | 103 | 105 | 209 | 105 | 215 | 84 | 160 | 52 | 93 | 87 | 195 | 74 | 138 | 80 | 160 | 23 | 29 | 93 | 185 |
| Mar. - | 168 | 466 | 182 | 520 | 168 | 379 | 201 | 377 | 198 | 417 | 163 | 266 | 182 | 391 | 120 | 335 | 120 | 280 | 124 | 217 | 91 | 286 | 83 | 221 | 108 | 268 | 51 | 80 | 145 | 330 |
| **Bright Sunshine.—Numbers of Hours.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. - | 35 | 35 | 41 | 41 | 37 | 37 | 77 | 77 | 52 | 52 | 67 | 67 | 55 | 55 | 33 | 33 | 43 | 43 | 50 | 50 | 50 | 50 | 55 | 55 | 46 | 46 | 46 | 46 | 51 | 51 |
| Feb. - | 62 | 97 | 66 | 107 | 64 | 101 | 93 | 170 | 67 | 119 | 87 | 154 | 75 | 130 | 53 | 86 | 70 | 113 | 76 | 126 | 60 | 110 | 59 | 114 | 64 | 110 | 86 | 132 | 70 | 121 |
| Mar. - | 106 | 203 | 134 | 241 | 138 | 239 | 184 | 354 | 170 | 289 | 192 | 346 | 164 | 294 | 135 | 221 | 170 | 283 | 197 | 323 | 156 | 266 | 172 | 286 | 166 | 276 | 222 | 354 | 165 | 286 |
| **Bright Sunshine.—Percentages of possible Duration.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. - | 17 | 14 | 19 | 15 | 17 | 13 | 34 | 28 | 23 | 19 | 29 | 24 | 24 | 20 | 16 | 11 | 20 | 15 | 21 | 14 | 23 | 15 | 24 | 18 | 21 | 15 | 19 | 15 | 23 | 18 |
| Feb. - | 23 | 17 | 25 | 20 | 24 | 18 | 34 | 30 | 25 | 23 | 32 | 28 | 28 | 24 | 20 | 17 | 26 | 21 | 27 | 23 | 23 | 23 | 22 | 23 | 24 | 21 | 31 | 25 | 26 | 23 |
| Mar. - | 26 | 23 | 33 | 27 | 34 | 26 | 46 | 39 | 42 | 33 | 48 | 38 | 41 | 32 | 33 | 23 | 42 | 29 | 48 | 34 | 39 | 29 | 43 | 31 | 41 | 29 | 55 | 39 | 41 | 31 |

1899.

## EXPLANATION OF TABLES.

TABLES I. and IA. are merely in continuation of the Tables given in the Quarterly Summaries of the Weekly Weather Reports, 1884–98. The whole of the values for 1878–99, however, have been corrected by information which may have been received since they were first published.

TABLE II. In this Table the monthly values for *January* are those for the first four weeks in the year; those for *February* are for the fifth to the eighth weeks; those for *March* are for the ninth to the thirteenth weeks.

The figures given in the columns headed "From Jan. 1" are the values for the whole period of 13 weeks elapsed since the beginning of the first week of the year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for "the Grazing, &c. Districts" the values for the "Channel Islands" are not included.

The Means for the British Islands generally are those for the Wheat Districts and Grazing Districts combined.

# QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1899.

VOL. XVI. APPENDIX I.] *New Series.* SECOND QUARTER—APRIL TO JUNE. [*Price 4d.*

## TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE SECOND QUARTER OF THE THIRTY-FOUR YEARS, 1866 TO 1899.

| | YEARS. | 0. Scotland, N. | | Principal Wheat-producing Districts. | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | | | Channel Islands. | | Means for the British Islands generally. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1. Scotland, E. | | 2. England, N.E. | | 3. England, E. | | 4. Midland Counties. | | 5. England, S. | | Means for Wheat-producing Districts. | | 6. Scotland, W. | | 7. England, N.W. | | 8. England, S.W. | | 9. Ireland, N. | | 10. Ireland, S. | | Means for the Grazing, &c. Districts. | | | | | |
| | | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. |
| RAINFALL (in Inches). | Means for 5 years, 1866-70 | — | 8·8 | — | 5·7 | — | 5·5 | — | 4·5 | — | 5·3 | — | 5·1 | — | 5·2 | — | 7·1 | — | 6·5 | — | 7·0 | — | 7·5 | — | 7·2 | — | 7·1 | — | — | — | 6·2 |
| | Means for 5 years, 1871-75 | — | 8·5 | — | 6·5 | — | 5·5 | — | 5·5 | — | 6·4 | — | 6·4 | — | 6·1 | — | 7·3 | — | 7·4 | — | 7·9 | — | 7·5 | — | 6·2 | — | 7·3 | — | — | — | 6·7 |
| | Means for 5 years, 1876-80 | — | 6·3 | — | 6·9 | — | 7·1 | — | 7·2 | — | 7·7 | — | 7·1 | — | 7·2 | — | 8·5 | — | 7·8 | — | 9·0 | — | 8·3 | — | 9·8 | — | 8·7 | — | — | — | 8·0 |
| | Means for 5 years, 1881-85 | 51 | 6·7 | 44 | 5·2 | 43 | 5·8 | 39 | 5·9 | 41 | 6·5 | 38 | 5·6 | 41 | 5·8 | 47 | 8·1 | 42 | 7·0 | 44 | 7·2 | 52 | 7·2 | 46 | 7·7 | 46 | 7·4 | 45 | 5·6 | 44 | 6·6 |
| | Means for 5 years, 1886-90 | 54 | 7·0 | 43 | 5·7 | 40 | 4·8 | 41 | 5·1 | 41 | 6·4 | 40 | 5·7 | 41 | 5·5 | 45 | 8·8 | 41 | 6·5 | 42 | 6·5 | 46 | 7·1 | 46 | 7·5 | 44 | 7·3 | 46 | 5·9 | 43 | 6·4 |
| | 1891 | 45 | 6·3 | 36 | 4·4 | 35 | 4·3 | 41 | 5·5 | 43 | 6·7 | 38 | 4·8 | 39 | 5·1 | 36 | 5·0 | 39 | 5·9 | 42 | 7·2 | 46 | 6·1 | 45 | 8·4 | 42 | 6·5 | 41 | 6·2 | 41 | 5·8 |
| | 1892 | 59 | 9·1 | 51 | 6·4 | 51 | 7·3 | 42 | 6·1 | 38 | 5·5 | 31 | 3·7 | 43 | 5·8 | 49 | 10·0 | 50 | 8·3 | 37 | 4·6 | 56 | 9·6 | 46 | 8·0 | 47 | 8·1 | 37 | 4·8 | 45 | 7·0 |
| | 1893 | 41 | 5·2 | 36 | 5·1 | 28 | 3·2 | 22 | 2·3 | 23 | 3·1 | 20 | 1·7 | 26 | 3·1 | 30 | 5·4 | 27 | 4·2 | 21 | 3·0 | 33 | 4·9 | 30 | 4·3 | 28 | 4·5 | 17 | 2·1 | 27 | 3·8 |
| | 1894 | 47 | 6·1 | 49 | 6·6 | 54 | 7·2 | 48 | 7·1 | 45 | 5·9 | 44 | 5·8 | 48 | 6·5 | 53 | 8·3 | 55 | 7·0 | 51 | 7·5 | 56 | 8·0 | 53 | 9·7 | 54 | 8·1 | 53 | 6·7 | 51 | 7·3 |
| | 1895 | 49 | 8·9 | 38 | 4·9 | 32 | 4·1 | 27 | 2·9 | 28 | 4·1 | 26 | 2·9 | 30 | 3·8 | 40 | 4·7 | 30 | 4·4 | 26 | 4·3 | 42 | 4·3 | 33 | 4·6 | 34 | 4·5 | 31 | 3·6 | 32 | 4·2 |
| | Means for 5 years, 1891-95 | 48 | 7·1 | 42 | 5·5 | 40 | 5·2 | 36 | 4·8 | 35 | 5·1 | 32 | 3·8 | 37 | 4·9 | 42 | 6·7 | 40 | 6·0 | 35 | 5·3 | 46 | 6·6 | 41 | 7·1 | 41 | 6·3 | 36 | 4·7 | 39 | 5·6 |
| | 1896 | 54 | 9·0 | 42 | 5·0 | 37 | 3·2 | 33 | 3·8 | 30 | 3·8 | 28 | 3·0 | 34 | 3·8 | 37 | 6·3 | 35 | 4·4 | 24 | 2·8 | 44 | 6·1 | 34 | 3·8 | 35 | 4·7 | 29 | 2·8 | 35 | 4·3 |
| | 1897 | 49 | 8·7 | 47 | 8·0 | 39 | 5·4 | 39 | 5·3 | 40 | 6·7 | 35 | 5·4 | 40 | 6·2 | 54 | 9·9 | 47 | 8·0 | 44 | 8·0 | 55 | 10·6 | 53 | 10·0 | 51 | 9·3 | 49 | 6·3 | 46 | 7·7 |
| | 1898 | 57 | 9·9 | 50 | 7·0 | 50 | 6·2 | 46 | 6·7 | 48 | 6·6 | 46 | 6·2 | 48 | 6·5 | 55 | 8·7 | 49 | 8·8 | 47 | 8·9 | 64 | 9·4 | 51 | 10·3 | 53 | 9·2 | 50 | 7·6 | 51 | 7·9 |
| | 1899 | 51 | 8·9 | 52 | 8·4 | 47 | 7·1 | 40 | 6·0 | 42 | 6·4 | 37 | 5·3 | 44 | 6·6 | 51 | 12·1 | 48 | 8·5 | 43 | 8·1 | 52 | 10·0 | 46 | 8·7 | 48 | 9·5 | 41 | 6·3 | 46 | 8·1 |
| | Means for 34 years, 1866-99 | — | 7·6 | — | 6·0 | — | 5·6 | — | 5·5 | — | 6·2 | — | 5·5 | — | 5·8 | — | 7·9 | — | 6·9 | — | 7·1 | — | 7·6 | — | 7·7 | — | 7·4 | — | — | — | 6·6 |
| MEAN TEMPERATURE (in Degrees Fahrenheit). | Means for 5 years, 1866-70 | 48°5 | | 50°4 | | 49°8 | | 52°7 | | 53°1 | | 53°1 | | 51°8 | | 51°3 | | 51°8 | | 53°9 | | 52°5 | | 53°0 | | 52°5 | | — | | 52°2 | |
| | Means for 5 years, 1871-75 | 48·2 | | 49·3 | | 49·6 | | 51·0 | | 52·0 | | 52·1 | | 50·3 | | 51·1 | | 51·3 | | 53·0 | | 51·6 | | 53·3 | | 52·1 | | — | | 51·5 | |
| | Means for 5 years, 1876-80 | 47·3 | | 48·9 | | 49·4 | | 51·1 | | 51·3 | | 51·9 | | 50·5 | | 50·2 | | 50·5 | | 52·0 | | 50·1 | | 52·0 | | 51·0 | | — | | 50·8 | |
| | Means for 5 years, 1881-85 | 46·8 | | 49·5 | | 50·0 | | 51·8 | | 51·8 | | 52·9 | | 51·2 | | 50·0 | | 50·8 | | 51·6 | | 50·6 | | 51·6 | | 50·9 | | 52·7 | | 51·1 | |
| | Means for 5 years, 1886-90 | 47·6 | | 49·2 | | 49·5 | | 51·4 | | 51·5 | | 52·6 | | 50·8 | | 50·1 | | 50·8 | | 51·9 | | 50·7 | | 52·1 | | 51·1 | | 52·8 | | 51·0 | |
| | 1891 | 47·5 | | 48·2 | | 48·8 | | 50·7 | | 50·8 | | 52·3 | | 50·2 | | 50·1 | | 50·5 | | 51·5 | | 50·5 | | 51·7 | | 50·9 | | 53·0 | | 50·6 | |
| | 1892 | 46·8 | | 48·2 | | 49·6 | | 51·6 | | 51·6 | | 52·5 | | 50·7 | | 49·6 | | 50·8 | | 51·8 | | 50·6 | | 52·2 | | 51·0 | | 53·6 | | 50·9 | |
| | 1893 | 51·0 | | 52·0 | | 52·0 | | 54·2 | | 55·3 | | 56·3 | | 54·0 | | 53·6 | | 54·9 | | 56·5 | | 54·8 | | 56·1 | | 55·2 | | 57·6 | | 54·6 | |
| | 1894 | 48·4 | | 48·3 | | 49·3 | | 51·5 | | 51·4 | | 53·2 | | 50·7 | | 50·0 | | 51·2 | | 52·1 | | 50·5 | | 52·2 | | 51·2 | | 53·8 | | 51·0 | |
| | 1895 | 49·2 | | 50·3 | | 50·8 | | 52·3 | | 53·0 | | 53·5 | | 52·0 | | 51·6 | | 52·2 | | 53·2 | | 52·0 | | 53·1 | | 52·4 | | 54·0 | | 52·2 | |
| | Means for 5 years, 1891-95 | 48·6 | | 49·4 | | 50·1 | | 52·1 | | 52·4 | | 53·6 | | 51·5 | | 51·0 | | 51·9 | | 53·0 | | 51·7 | | 53·1 | | 52·1 | | 54·4 | | 51·8 | |
| | 1896 | 49·8 | | 51·7 | | 51·8 | | 52·6 | | 53·4 | | 54·2 | | 52·7 | | 52·5 | | 53·5 | | 54·4 | | 53·1 | | 54·4 | | 53·6 | | 55·4 | | 53·2 | |
| | 1897 | 47·4 | | 48·3 | | 49·6 | | 52·1 | | 52·0 | | 53·7 | | 51·1 | | 49·9 | | 51·2 | | 53·1 | | 50·0 | | 52·5 | | 51·3 | | 54·4 | | 51·2 | |
| | 1898 | 48·4 | | 49·2 | | 49·9 | | 51·4 | | 51·3 | | 52·6 | | 50·9 | | 50·7 | | 51·3 | | 52·2 | | 51·0 | | 52·4 | | 51·5 | | 53·7 | | 51·2 | |
| | 1899 | 47·7 | | 48·6 | | 49·9 | | 51·7 | | 51·8 | | 53·3 | | 51·1 | | 50·2 | | 51·5 | | 52·9 | | 50·9 | | 52·9 | | 51·7 | | 54·7 | | 51·4 | |
| | Means for 34 years, 1866-99 | 47·9 | | 49·5 | | 49·8 | | 51·7 | | 52·0 | | 52·8 | | 51·2 | | 50·6 | | 51·3 | | 52·7 | | 51·2 | | 52·6 | | 51·7 | | — | | 51·5 | |

## TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE THIRTY-FOUR YEARS, 1866 TO 1899.

| | | Wheat Districts. | Grazing, &c. Districts. | Generally. |
|---|---|---|---|---|
| **Rainfall** | Driest | Ins. 3·1 in 1870 and 1893 | Ins. 4·2 in 1887 | Ins. 3·8 in 1893 |
| | Wettest | 9·4 in 1879 | 10·3 in 1872 and 1878<br>10·2 in 1879 and 1882 | 9·8 in 1879 |
| **Temperature** | Coldest | 48°4 in 1879 | 46°1 in 1879 and 1885 | 48°8 in 1879 |
| | Warmest | 54·0 in 1868 and 1893 | 55·2 in 1893 | 54·6 in 1893 |

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TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE SECOND QUARTER, 1899.

| YEAR AND MONTHS. | 0. Scotland, N. | | Principal Wheat-producing Districts. | | | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | | | Channel Islands. | | Means for the British Islands generally. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1. Scotland, E. | | 2. England, N.E. | | 3. England, E. | | 4. Midland Counties. | | 5. England, S. | | Means for Wheat-producing Districts. | | 6. Scotland, W. | | 7. England, N.W. | | 8. England, S.W. | | 9. Ireland, N. | | 10. Ireland, S. | | Means for the Grazing, &c. Districts. | | | | | |
| | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. |
| **RAINFALL.—NUMBERS OF DAYS WITH RAIN.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| April - | 21 | 81 | 22 | 75 | 18 | 66 | 18 | 64 | 19 | 63 | 19 | 57 | 19 | 64 | 20 | 77 | 21 | 72 | 21 | 70 | 23 | 85 | 21 | 72 | 21 | 74 | 20 | 68 | 20 | 69 |
| May - | 14 | 95 | 17 | 92 | 19 | 85 | 13 | 77 | 14 | 77 | 10 | 67 | 15 | 79 | 17 | 94 | 17 | 89 | 15 | 85 | 17 | 102 | 15 | 87 | 16 | 90 | 13 | 81 | 16 | 85 |
| June - | 16 | 111 | 13 | 105 | 10 | 95 | 9 | 86 | 9 | 86 | 8 | 75 | 10 | 89 | 14 | 108 | 10 | 99 | 7 | 92 | 12 | 114 | 10 | 97 | 11 | 101 | 8 | 89 | 11 | 96 |
| **RAINFALL.—AMOUNTS IN INCHES.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| April - | 4·18 | 17·90 | 3·15 | 11·53 | 2·00 | 7·32 | 2·37 | 6·93 | 2·14 | 8·97 | 2·77 | 8·70 | 2·49 | 8·69 | 4·59 | 17·66 | 3·31 | 12·20 | 3·73 | 16·20 | 4·18 | 13·07 | 3·57 | 16·09 | 3·88 | 15·06 | 2·66 | 10·72 | 3·19 | 11·91 |
| May - | 2·64 | 20·54 | 3·30 | 14·83 | 3·13 | 10·45 | 2·11 | 9·04 | 2·25 | 11·22 | 1·21 | 9·91 | 2·40 | 11·09 | 4·15 | 21·81 | 2·55 | 14·75 | 2·67 | 18·87 | 3·04 | 16·11 | 3·16 | 19·25 | 3·11 | 18·17 | 2·19 | 12·91 | 2·76 | 14·67 |
| June - | 2·12 | 22·66 | 1·94 | 16·77 | 1·92 | 12·37 | 1·52 | 10·56 | 2·02 | 13·24 | 1·34 | 11·25 | 1·75 | 12·84 | 3·36 | 25·17 | 2·59 | 17·34 | 1·68 | 20·55 | 2·74 | 18·85 | 2·00 | 21·26 | 2·47 | 20·64 | 1·41 | 14·33 | 2·11 | 16·78 |
| **ACCUMULATED HEAT.—DAY DEGREES ABOVE 42° F.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| April - | 81 | 197 | 103 | 252 | 119 | 348 | 166 | 443 | 147 | 442 | 175 | 507 | 142 | 399 | 105 | 289 | 132 | 386 | 165 | 512 | 130 | 382 | 188 | 557 | 144 | 425 | 210 | 731 | 143 | 413 |
| May - | 131 | 328 | 129 | 381 | 145 | 493 | 222 | 665 | 216 | 658 | 258 | 765 | 194 | 593 | 164 | 453 | 188 | 574 | 236 | 748 | 180 | 562 | 224 | 781 | 198 | 623 | 305 | 1036 | 196 | 609 |
| June - | 431 | 759 | 494 | 875 | 497 | 990 | 515 | 1180 | 558 | 1216 | 599 | 1364 | 533 | 1126 | 513 | 966 | 554 | 1128 | 585 | 1333 | 522 | 1084 | 575 | 1356 | 550 | 1173 | 616 | 1652 | 542 | 1151 |
| **ACCUMULATED HEAT.—DAY DEGREES BELOW 42° F.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| April - | 92 | 557 | 86 | 606 | 54 | 433 | 31 | 408 | 38 | 455 | 25 | 291 | 47 | 438 | 54 | 389 | 23 | 303 | 23 | 240 | 30 | 316 | 23 | 244 | 31 | 299 | 1 | 81 | 39 | 369 |
| May - | 60 | 617 | 63 | 669 | 23 | 456 | 13 | 421 | 18 | 473 | 3 | 294 | 24 | 462 | 24 | 413 | 10 | 313 | 0 | 240 | 7 | 323 | 1 | 245 | 8 | 307 | 0 | 81 | 16 | 385 |
| June - | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 5 | 478 | 0 | 294 | 1 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| **BRIGHT SUNSHINE.—NUMBERS OF HOURS.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| April - | 124 | 327 | 124 | 365 | 102 | 341 | 112 | 466 | 102 | 391 | 119 | 465 | 112 | 406 | 113 | 334 | 106 | 389 | 129 | 452 | 113 | 379 | 136 | 422 | 119 | 395 | 150 | 504 | 116 | 402 |
| May - | 168 | 495 | 134 | 499 | 128 | 469 | 170 | 636 | 144 | 535 | 180 | 645 | 151 | 557 | 148 | 482 | 152 | 541 | 164 | 616 | 160 | 539 | 184 | 606 | 162 | 557 | 200 | 704 | 157 | 559 |
| June - | 193 | 688 | 248 | 744 | 241 | 710 | 308 | 944 | 298 | 833 | 334 | 979 | 285 | 842 | 260 | 742 | 315 | 856 | 345 | 961 | 242 | 781 | 266 | 872 | 286 | 843 | 354 | 1058 | 286 | 845 |
| **BRIGHT SUNSHINE.—PERCENTAGES OF POSSIBLE DURATION.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| April - | 32 | 25 | 32 | 30 | 26 | 28 | 30 | 37 | 27 | 33 | 31 | 37 | 29 | 33 | 29 | 27 | 28 | 31 | 34 | 36 | 30 | 31 | 35 | 34 | 31 | 32 | 39 | 41 | 30 | 33 |
| May - | 37 | 28 | 30 | 30 | 29 | 28 | 40 | 37 | 34 | 34 | 42 | 39 | 35 | 34 | 34 | 29 | 35 | 33 | 39 | 37 | 37 | 32 | 43 | 36 | 38 | 33 | 48 | 43 | 37 | 34 |
| June - | 31 | 29 | 46 | 32 | 40 | 32 | 54 | 40 | 52 | 38 | 59 | 43 | 49 | 37 | 44 | 33 | 54 | 38 | 62 | 42 | 42 | 35 | 46 | 40 | 50 | 38 | 64 | 47 | 49 | 38 |

1899.

## EXPLANATION OF TABLES.

TABLES I. and IA. are merely in continuation of the Tables given in the Quarterly Summaries of the Weekly Weather Reports, 1884-98. The whole of the values for 1878-99, however, have been corrected by information received since they were first published.

TABLE II. In this Table the monthly values for *April* are those for the fourteenth to the seventeenth weeks in the year; those for *May* are for the eighteenth to the twenty-first weeks; those for *June* are for the twenty-second to the twenty-sixth weeks.

The figures given in the columns headed "From Jan. 1" are the values for the whole period elapsed since the beginning of the first week of the year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for "the Grazing, &c. Districts" the values for the "Channel Islands" are not included.

The Means for the British Islands generally are those for the Wheat Districts and Grazing Districts combined.

(OFFICIAL COPY.)

# QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1899.

VOL. XVI. APPENDIX I.] THIRD QUARTER—JULY TO SEPTEMBER. [*Price 4d.*
*New Series.*

TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE THIRD QUARTER OF THE THIRTY-FOUR YEARS, 1866 TO 1899.

| | YEARS. | **Principal Wheat-producing Districts.** | | | | | | | | | | | | **Principal Grazing, &c. Districts.** | | | | | | | | | | | | CHANNEL ISLANDS. | | MEANS FOR THE BRITISH ISLANDS GENERALLY. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **0.** SCOTLAND, N. | | **1.** SCOTLAND, E. | | **2.** ENGLAND, N.E. | | **3.** ENGLAND, E. | | **4.** MIDLAND COUNTIES. | | **5.** ENGLAND, S. | | MEANS FOR WHEAT-PRODUCING DISTRICTS. | | **6.** SCOTLAND, W. | | **7.** ENGLAND, N.W. | | **8.** ENGLAND, S.W. | | **9.** IRELAND, N. | | **10.** IRELAND, S. | | MEANS FOR THE GRAZING, &C. DISTRICTS. | | | | |
| | | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. |
| RAINFALL (in Inches). | Means for 5 years, 1866-70 | — | 10·6 | — | 8·8 | — | 6·3 | — | 6·1 | — | 7·4 | — | 7·3 | — | 7·2 | — | 10·9 | — | 9·9 | — | 10·1 | — | 9·8 | — | 8·6 | — | 9·8 | — | — | — | 8·6 |
| | Means for 5 years, 1871-75 | — | 13·1 | -- | 10·7 | — | 8·4 | — | 7·5 | — | 9·1 | -- | 8·0 | — | 8·7 | — | 13·2 | — | 12·9 | -- | 14·1 | — | 12·2 | — | 10·8 | — | 12·6 | — | — | — | 10·7 |
| | Means for 5 years, 1876-80 | — | 9·0 | — | 8·9 | — | 9·2 | — | 9·0 | -- | 10·1 | — | 8·7 | — | 9·2 | -- | 11·7 | — | 12·3 | — | 11·6 | — | 11·1 | — | 10·7 | — | 11·5 | — | — | — | 10·4 |
| | Means for 5 years, 1881-85 | 56 | 7·8 | 51 | 7·9 | 46 | 7·3 | 45 | 7·4 | 45 | 7·5 | 44 | 6·6 | 46 | 7·3 | 53 | 11·8 | 49 | 9·8 | 52 | 10·0 | 60 | 10·3 | 53 | 10·2 | 53 | 10·4 | 54 | 7·6 | 50 | 8·9 |
| | Means for 5 years, 1886-90 | 60 | 10·3 | 51 | 7·4 | 46 | 7·6 | 45 | 7·3 | 43 | 6·8 | 40 | 6·9 | 45 | 7·2 | 51 | 10·9 | 47 | 9·3 | 46 | 9·1 | 58 | 10·3 | 50 | 9·1 | 50 | 9·7 | 46 | 7·1 | 48 | 8·5 |
| | 1891 | 71 | 15·9 | 59 | 11·7 | 51 | 8·8 | 51 | 8·5 | 52 | 7·9 | 52 | 9·0 | 53 | 9·2 | 62 | 14·9 | 55 | 13·8 | 56 | 12·9 | 66 | 11·3 | 56 | 11·0 | 59 | 12·8 | 51 | 9·7 | 56 | 11·0 |
| | 1892 | 66 | 15·0 | 51 | 8·3 | 44 | 6·6 | 40 | 8·2 | 46 | 7·5 | 44 | 8·4 | 45 | 7·8 | 53 | 15·5 | 53 | 12·1 | 51 | 10·0 | 62 | 12·0 | 53 | 13·2 | 54 | 12·5 | 43 | 7·2 | 50 | 10·2 |
| | 1893 | 70 | 15·7 | 55 | 8·1 | 49 | 6·8 | 45 | 5·9 | 43 | 6·0 | 43 | 7·0 | 47 | 6·8 | 53 | 11·3 | 54 | 10·4 | 47 | 9·9 | 60 | 11·2 | 52 | 8·7 | 53 | 10·3 | 51 | 9·8 | 50 | 8·6 |
| | 1894 | 53 | 10·5 | 48 | 8·9 | 49 | 6·2 | 54 | 7·6 | 44 | 6·8 | 51 | 9·2 | 49 | 7·7 | 40 | 7·3 | 44 | 8·0 | 52 | 10·7 | 54 | 6·8 | 45 | 8·8 | 47 | 8·3 | 54 | 11·9 | 48 | 8·0 |
| | 1895 | 63 | 14·0 | 51 | 9·6 | 44 | 7·9 | 34 | 8·3 | 40 | 6·6 | 37 | 6·8 | 41 | 7·8 | 54 | 12·7 | 46 | 9·3 | 40 | 8·3 | 57 | 10·9 | 49 | 10·1 | 49 | 10·3 | 39 | 5·7 | 45 | 9·1 |
| | Means for 5 years, 1891-95 | 65 | 14·2 | 53 | 9·3 | 47 | 7·3 | 45 | 7·7 | 45 | 7·0 | 45 | 8·1 | 47 | 7·9 | 52 | 12·3 | 50 | 10·7 | 49 | 10·4 | 60 | 10·4 | 51 | 10·4 | 52 | 10·8 | 48 | 8·9 | 50 | 9·4 |
| | 1896 | 59 | 13·5 | 59 | 9·3 | 52 | 6·9 | 49 | 8·2 | 51 | 8·3 | 46 | 9·1 | 51 | 8·4 | 60 | 13·9 | 55 | 11·3 | 49 | 10·0 | 64 | 13·5 | 56 | 12·7 | 57 | 12·3 | 50 | 9·6 | 54 | 10·4 |
| | 1897 | 58 | 12·2 | 53 | 7·7 | 42 | 7·4 | 41 | 6·9 | 42 | 7·4 | 41 | 6·6 | 44 | 7·2 | 55 | 11·9 | 47 | 10·0 | 53 | 11·7 | 59 | 10·5 | 56 | 11·0 | 54 | 11·0 | 53 | 9·1 | 49 | 9·1 |
| | 1898 | 57 | 13·1 | 43 | 6·5 | 30 | 3·8 | 21 | 2·9 | 25 | 4·2 | 19 | 2·8 | 28 | 4·0 | 49 | 11·1 | 40 | 7·2 | 29 | 5·4 | 51 | 8·9 | 42 | 9·0 | 42 | 8·3 | 34 | 3·7 | 35 | 6·2 |
| | 1899 | 55 | 12·2 | 47 | 7·6 | 38 | 5·6 | 34 | 5·2 | 33 | 5·1 | 28 | 5·4 | 36 | 5·8 | 54 | 10·1 | 47 | 8·9 | 38 | 6·7 | 56 | 8·3 | 44 | 8·3 | 48 | 8·5 | 33 | 4·8 | 42 | 7·2 |
| | Means for 34 years, 1866-99 | — | 11·1 | — | 8·7 | — | 7·5 | — | 7·3 | — | 7·8 | — | 7·4 | — | 7·7 | — | 11·8 | — | 10·7 | — | 10·6 | — | 10·6 | — | 10·0 | — | 10·7 | — | — | — | 9·2 |
| MEAN TEMPERATURE (in Degrees Fahrenheit). | Means for 5 years, 1866-70 | | 54·4 | | 57·1 | | 57·0 | | 59·7 | | 59·7 | | 60·1 | | 58·7 | | 57·9 | | 59·0 | | 61·0 | | 58·5 | | 59·5 | | 59·2 | | — | | 59·0 |
| | Means for 5 years, 1871-75 | | 54·5 | | 56·7 | | 57·5 | | 59·7 | | 59·6 | | 60·0 | | 58·7 | | 57·7 | | 58·5 | | 60·4 | | 57·2 | | 58·8 | | 58·5 | | — | | 58·6 |
| | Means for 5 years, 1876-80 | | 54·1 | | 56·4 | | 57·6 | | 59·6 | | 59·3 | | 60·3 | | 58·6 | | 57·2 | | 58·1 | | 59·9 | | 56·8 | | 59·0 | | 58·2 | | — | | 58·4 |
| | Means for 5 years, 1881-85 | | 53·1 | | 56·3 | | 57·3 | | 59·0 | | 58·2 | | 59·9 | | 58·1 | | 55·9 | | 57·2 | | 58·1 | | 56·2 | | 57·2 | | 56·9 | | 59·8 | | 57·6 |
| | Means for 5 years, 1886-90 | | 52·8 | | 55·1 | | 56·7 | | 58·7 | | 57·9 | | 59·6 | | 57·6 | | 55·4 | | 57·0 | | 58·2 | | 56·1 | | 57·6 | | 56·9 | | 60·1 | | 57·3 |
| | 1891 | | 54·0 | | 55·7 | | 57·0 | | 58·4 | | 57·5 | | 59·2 | | 57·6 | | 56·1 | | 57·4 | | 57·4 | | 56·6 | | 57·3 | | 57·0 | | 59·8 | | 57·3 |
| | 1892 | | 52·1 | | 53·5 | | 55·4 | | 57·6 | | 56·5 | | 59·2 | | 56·4 | | 54·4 | | 56·2 | | 57·6 | | 55·1 | | 57·0 | | 56·1 | | 60·6 | | 56·3 |
| | 1893 | | 55·0 | | 56·3 | | 58·4 | | 60·5 | | 60·2 | | 61·7 | | 59·4 | | 57·3 | | 59·9 | | 60·4 | | 58·1 | | 59·5 | | 59·0 | | 62·7 | | 59·2 |
| | 1894 | | 54·5 | | 55·1 | | 56·5 | | 58·0 | | 57·2 | | 59·3 | | 57·2 | | 55·5 | | 57·2 | | 57·6 | | 55·9 | | 56·7 | | 56·6 | | 60·1 | | 56·9 |
| | 1895 | | 55·4 | | 56·9 | | 59·4 | | 60·8 | | 60·0 | | 61·7 | | 59·8 | | 57·2 | | 59·3 | | 59·8 | | 57·5 | | 58·3 | | 58·4 | | 62·4 | | 59·1 |
| | Means for 5 years, 1891-95 | | 54·2 | | 55·5 | | 57·3 | | 59·1 | | 58·3 | | 60·2 | | 58·1 | | 56·1 | | 58·0 | | 58·6 | | 56·6 | | 57·8 | | 57·4 | | 61·1 | | 57·8 |
| | 1896 | | 53·8 | | 55·1 | | 57·6 | | 59·4 | | 58·3 | | 60·9 | | 58·3 | | 56·1 | | 58·1 | | 59·4 | | 56·1 | | 58·1 | | 57·6 | | 61·8 | | 58·0 |
| | 1897 | | 54·9 | | 55·9 | | 57·4 | | 59·3 | | 58·6 | | 60·9 | | 58·4 | | 56·6 | | 58·3 | | 59·2 | | 56·8 | | 58·1 | | 57·8 | | 61·3 | | 58·1 |
| | 1898 | | 54·9 | | 56·9 | | 58·7 | | 60·6 | | 60·1 | | 62·3 | | 59·7 | | 57·4 | | 59·2 | | 60·7 | | 58·1 | | 60·3 | | 59·1 | | 63·2 | | 59·4 |
| | 1899 | | 56·0 | | 57·0 | | 59·1 | | 61·6 | | 61·2 | | 63·4 | | 60·5 | | 57·7 | | 59·9 | | 62·3 | | 58·5 | | 60·3 | | 59·7 | | 64·4 | | 60·1 |
| | Means for 34 years, 1866-99 | | 54·0 | | 56·2 | | 57·4 | | 59·4 | | 58·9 | | 60·3 | | 58·4 | | 56·7 | | 58·1 | | 59·5 | | 57·0 | | 58·4 | | 57·9 | | — | | 58·2 |

TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE THIRTY-FOUR YEARS, 1866 TO 1899.

| | | Wheat Districts. | Grazing, &c. Districts. | Generally. |
|---|---|---|---|---|
| **Rainfall** | Driest | Ins. 4·0 in 1898 | Ins. 6·4 in 1870 | Ins. 5·7 in 1870 |
| | Wettest | 10·6 in 1879 | 14·2 in 1872 | 12·4 in 1879 |
| **Temperature** | Coldest | 55°·7 in 1888 | 55·5 in 1888 | 55°·6 in 1888 |
| | Warmest | 60·9 in 1868 | 60·8 in 1865 | 60·9 in 1868 |

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TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE THIRD QUARTER, 1899.

| YEAR AND MONTHS. | 0. Scotland, N. | | Principal Wheat-producing Districts. | | | | | | | | | | Means for Wheat-producing Districts. | | Principal Grazing, &c. Districts. | | | | | | | | | | Means for the Grazing, &c. Districts. | | Channel Islands. | | Means for the British Islands generally. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1. Scotland, E. | | 2. England, N.E. | | 3. England, E. | | 4. Midland Counties. | | 5. England, S. | | | | 6. Scotland, W. | | 7. England, N.W. | | 8. England, S.W. | | 9. Ireland, N. | | 10. Ireland, S. | | | | | | | |
| | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. |
| **RAINFALL.—NUMBERS OF DAYS WITH RAIN.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July - | 16 | 127 | 14 | 119 | 13 | 108 | 8 | 94 | 7 | 93 | 6 | 81 | 10 | 99 | 16 | 124 | 11 | 110 | 9 | 101 | 16 | 130 | 14 | 111 | 13 | 114 | 9 | 98 | 12 | 10 |
| August - | 7 | 134 | 4 | 123 | 4 | 112 | 5 | 99 | 4 | 97 | 2 | 83 | 4 | 103 | 8 | 132 | 9 | 119 | 5 | 106 | 9 | 139 | 6 | 117 | 7 | 121 | 2 | 100 | 6 | 11 |
| Sept. - | 32 | 166 | 29 | 152 | 21 | 133 | 21 | 120 | 22 | 119 | 20 | 103 | 23 | 126 | 30 | 162 | 27 | 146 | 21 | 130 | 31 | 170 | 24 | 141 | 27 | 148 | 22 | 123 | 25 | 13 |
| **RAINFALL.—AMOUNTS IN INCHES.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July - | 2·96 | 25·62 | 2·63 | 19·40 | 1·93 | 14·30 | 1·52 | 12·08 | 0·82 | 14·06 | 1·07 | 12·32 | 1·59 | 14·43 | 3·03 | 28·20 | 2·36 | 19·70 | 1·49 | 22·04 | 1·79 | 20·64 | 2·66 | 23·92 | 2·27 | 22·91 | 1·23 | 15·56 | 1·93 | 18·7 |
| August - | 0·92 | 26·54 | 0·31 | 19·71 | 0·19 | 14·49 | 0·53 | 12·61 | 0·57 | 14·63 | 0·51 | 12·83 | 0·42 | 14·85 | 0·76 | 28·96 | 0·81 | 20·51 | 0·93 | 23·02 | 1·30 | 21·94 | 2·23 | 26·15 | 1·22 | 24·13 | 0·20 | 15·76 | 0·62 | 19·5 |
| Sept - | 8·32 | 34·86 | 4·68 | 24·39 | 3·45 | 17·94 | 3·12 | 15·73 | 3·75 | 18·38 | 3·82 | 16·65 | 3·76 | 18·61 | 6·28 | 35·24 | 5·77 | 26·28 | 4·24 | 27·26 | 5·25 | 27·19 | 3·41 | 29·56 | 4·39 | 29·12 | 3·37 | 19·13 | 4·38 | 23·5 |
| **ACCUMULATED HEAT.—DAY DEGREES ABOVE 42° F.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July - | 410 | 1169 | 462 | 1337 | 531 | 1521 | 596 | 1776 | 571 | 1787 | 622 | 1986 | 556 | 1682 | 466 | 1432 | 516 | 1644 | 532 | 1895 | 466 | 1551 | 510 | 1866 | 504 | 1678 | 592 | 2244 | 530 | 1681 |
| August - | 469 | 1638 | 496 | 1833 | 523 | 2044 | 589 | 2365 | 617 | 2404 | 676 | 2662 | 580 | 2262 | 528 | 1960 | 591 | 2235 | 663 | 2558 | 562 | 2113 | 607 | 2473 | 590 | 2268 | 717 | 2961 | 585 | 2266 |
| Sept. - | 359 | 2004 | 378 | 2211 | 465 | 2509 | 553 | 2918 | 510 | 2914 | 600 | 3262 | 501 | 2763 | 400 | 2360 | 487 | 2722 | 578 | 3136 | 444 | 2557 | 510 | 2983 | 484 | 2751 | 696 | 3657 | 493 | 2759 |
| **ACCUMULATED HEAT.—DAY DEGREES BELOW 42° F.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July - | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 38 |
| August - | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 38 |
| Sept. - | 7 | 624 | 8 | 677 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 2 | 465 | 1 | 414 | 0 | 313 | 0 | 240 | 2 | 325 | 0 | 245 | 1 | 308 | 0 | 81 | 2 | 38 |
| **BRIGHT SUNSHINE.—NUMBERS OF HOURS.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July - | 95 | 783 | 115 | 856 | 129 | 839 | 211 | 1153 | 190 | 1023 | 252 | 1231 | 179 | 1020 | 129 | 871 | 149 | 1005 | 225 | 1185 | 88 | 869 | 111 | 983 | 140 | 982 | 259 | 1317 | 160 | 100 |
| August - | 200 | 983 | 191 | 1047 | 166 | 1005 | 252 | 1405 | 230 | 1253 | 279 | 1510 | 224 | 1244 | 187 | 1058 | 231 | 1236 | 234 | 1479 | 211 | 1080 | 241 | 1224 | 233 | 1215 | 304 | 1621 | 229 | 123 |
| Sept. - | 115 | 1098 | 129 | 1176 | 160 | 1165 | 212 | 1617 | 177 | 1430 | 217 | 1727 | 179 | 1423 | 145 | 1203 | 154 | 1390 | 197 | 1676 | 133 | 1213 | 119 | 1373 | 156 | 1371 | 210 | 1839 | 168 | 140 |
| **BRIGHT SUNSHINE.—PERCENTAGES OF POSSIBLE DURATION.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| July - | 20 | 28 | 25 | 32 | 28 | 32 | 47 | 41 | 43 | 38 | 57 | 44 | 40 | 37 | 28 | 33 | 33 | 37 | 51 | 43 | 20 | 33 | 25 | 37 | 31 | 37 | 60 | 51 | 36 | 3 |
| August - | 47 | 29 | 45 | 32 | 40 | 32 | 61 | 43 | 57 | 40 | 69 | 47 | 51 | 39 | 46 | 33 | 56 | 38 | 72 | 46 | 51 | 33 | 59 | 38 | 57 | 38 | 76 | 54 | 56 | 3 |
| Sept. - | 25 | 30 | 29 | 33 | 36 | 33 | 48 | 44 | 40 | 41 | 49 | 48 | 40 | 40 | 33 | 33 | 34 | 39 | 44 | 47 | 30 | 34 | 33 | 39 | 35 | 38 | 49 | 55 | 38 | 3 |

1899.

## EXPLANATION OF TABLES.

TABLES I. and IA. are merely in continuation of the Tables given in the Quarterly Summaries of the Weekly Weather Reports, 1884–98. The whole of the values for 1878–90, however, have been corrected by information received since they were first published.

TABLE II. In this Table the monthly values for *July* are those for the twenty-seventh to the thirtieth weeks in the year; those for *August* are for the thirty-first to the thirty-fourth weeks; those for *September* are for the thirty-fifth to the thirty-ninth weeks.

The figures given in the columns headed "From Jan. 1" are the values for the whole period elapsed since the beginning of the first week of the year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for "the Grazing, &c. Districts" the values for the "Channel Islands" are not included.

The Means for the British Islands generally are those for the Wheat Districts and Grazing Districts combined.

# QUARTERLY SUMMARY OF THE WEEKLY WEATHER REPORT, 1899.

VOL. XVI. APPENDIX I.] *New Series.* FOURTH QUARTER—OCTOBER TO DECEMBER. [*Price 4d.*

## TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE, FOR THE FOURTH QUARTER OF THE THIRTY-FOUR YEARS, 1866 TO 1899.

**RAINFALL** (in Inches).

| YEARS. | 0. Scotland, N. | | Principal Wheat-producing Districts. | | | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | Channel Islands. | | Means for the British Islands generally. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1. Scotland, E. | | 2. England, N.E. | | 3. England, E. | | 4. Midland Counties. | | 5. England, S. | | Means for Wheat-producing Districts. | | 6. Scotland, W. | | 7. England, N.W. | | 8. England, S.W. | | 9. Ireland, N. | | 10. Ireland, S. | | Means for the Grazing, &c. Districts. | | | | | |
| | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. |
| Means for 5 years, 1866-70 | — | 18·4 | — | 8·8 | — | 7·7 | — | 7·4 | — | 7·6 | — | 8·3 | — | 8·0 | — | 12·9 | — | 14·7 | — | 14·6 | — | 12·6 | — | 10·5 | — | 13·1 | — | — | — | 10·6 |
| Means for 5 years, 1871-75 | — | 17·2 | — | 10·4 | — | 7·7 | — | 7·2 | — | 7·9 | — | 9·9 | — | 8·6 | — | 13·1 | — | 13·3 | — | 16·3 | — | 11·1 | — | 12·1 | — | 13·2 | — | — | — | 10·9 |
| Means for 5 years, 1876-80 | — | 13·8 | — | 9·1 | — | 8·1 | — | 7·2 | — | 8·1 | — | 9·5 | — | 8·4 | — | 12·8 | — | 12·0 | — | 14·1 | — | 11·0 | — | 11·3 | — | 12·2 | — | — | — | 10·3 |
| Means for 5 years, 1881-85 | 68 | 12·7 | 54 | 7·2 | 55 | 7·3 | 59 | 8·8 | 55 | 8·6 | 52 | 8·9 | 55 | 8·2 | 58 | 15·8 | 56 | 11·0 | 62 | 13·7 | 64 | 11·8 | 61 | 11·8 | 60 | 12·8 | 67 | 12·4 | 58 | 10·5 |
| Means for 5 years, 1886-90 | 71 | 15·0 | 57 | 8·5 | 53 | 7·3 | 51 | 6·6 | 50 | 7·2 | 52 | 8·8 | 53 | 7·7 | 58 | 15·3 | 59 | 10·7 | 62 | 13·6 | 64 | 12·1 | 59 | 12·6 | 60 | 12·9 | 67 | 11·9 | 57 | 10·3 |
| 1891 | 61 | 15·9 | 51 | 9·7 | 52 | 7·8 | 62 | 9·0 | 60 | 11·4 | 62 | 13·6 | 57 | 10·3 | 60 | 20·8 | 58 | 14·2 | 64 | 18·2 | 64 | 12·4 | 61 | 16·5 | 61 | 16·4 | 65 | 14·6 | 59 | 13·4 |
| 1892 | 65 | 14·5 | 53 | 8·0 | 55 | 7·3 | 49 | 8·9 | 48 | 6·1 | 47 | 8·6 | 50 | 7·8 | 57 | 13·0 | 56 | 10·5 | 57 | 10·1 | 68 | 10·5 | 59 | 11·3 | 59 | 11·1 | 63 | 10·3 | 55 | 9·5 |
| 1893 | 76 | 24·2 | 57 | 8·2 | 52 | 5·9 | 55 | 7·7 | 50 | 6·7 | 51 | 8·9 | 53 | 7·5 | 65 | 16·4 | 61 | 10·4 | 56 | 12·1 | 65 | 10·1 | 57 | 10·4 | 61 | 11·9 | 61 | 9·2 | 57 | 9·7 |
| 1894 | 66 | 15·8 | 48 | 7·4 | 54 | 7·0 | 56 | 7·7 | 53 | 8·9 | 52 | 10·8 | 53 | 8·4 | 62 | 15·3 | 58 | 11·4 | 55 | 16·2 | 60 | 10·9 | 53 | 14·1 | 58 | 13·6 | 58 | 12·3 | 56 | 11·0 |
| 1895 | 66 | 16·6 | 58 | 10·6 | 55 | 8·2 | 52 | 7·4 | 53 | 8·6 | 56 | 10·5 | 55 | 9·1 | 53 | 14·2 | 59 | 11·9 | 65 | 16·6 | 63 | 12·7 | 62 | 13·8 | 60 | 13·8 | 74 | 15·3 | 58 | 11·5 |
| Means for 5 years, 1891-95 | 67 | 17·4 | 53 | 8·8 | 54 | 7·2 | 55 | 8·1 | 53 | 8·3 | 54 | 10·5 | 54 | 8·6 | 59 | 15·9 | 58 | 11·7 | 59 | 14·6 | 64 | 11·3 | 58 | 13·2 | 60 | 13·3 | 64 | 12·3 | 57 | 11·0 |
| 1896 | 71 | 15·9 | 62 | 10·4 | 68 | 11·1 | 61 | 8·0 | 53 | 8·2 | 57 | 9·3 | 61 | 9·4 | 58 | 13·1 | 57 | 11·2 | 63 | 14·0 | 62 | 10·4 | 58 | 11·5 | 60 | 12·0 | 76 | 12·9 | 61 | 10·7 |
| 1897 | 59 | 14·7 | 47 | 7·7 | 43 | 5·2 | 37 | 3·9 | 42 | 6·0 | 37 | 5·5 | 41 | 5·7 | 55 | 14·4 | 44 | 11·2 | 44 | 11·0 | 54 | 10·4 | 49 | 15·0 | 49 | 12·4 | 46 | 8·9 | 45 | 9·1 |
| 1898 | 71 | 24·4 | 59 | 11·4 | 52 | 8·5 | 48 | 7·2 | 50 | 8·3 | 48 | 9·2 | 51 | 8·9 | 62 | 16·1 | 63 | 10·5 | 64 | 15·3 | 69 | 11·7 | 64 | 13·5 | 64 | 13·4 | 68 | 12·7 | 58 | 11·2 |
| 1899 | 67 | 18·5 | 48 | 8·6 | 40 | 6·3 | 38 | 6·6 | 35 | 6·9 | 34 | 8·4 | 39 | 7·4 | 59 | 16·6 | 41 | 9·3 | 45 | 11·4 | 58 | 11·2 | 50 | 13·2 | 51 | 12·3 | 46 | 9·9 | 45 | 9·9 |
| Means for 34 years, 1866-99 | — | 16·1 | — | 8·9 | — | 7·6 | — | 7·4 | — | 7·9 | — | 9·2 | — | 8·2 | — | 14·4 | — | 12·0 | — | 14·3 | — | 11·6 | — | 12·1 | — | 12·9 | — | — | — | 10·6 |

**MEAN TEMPERATURE** (in Degrees Fahrenheit).

| YEARS. | 0. Scotland, N. | Principal Wheat-producing Districts. | | | | | | Principal Grazing, &c. Districts. | | | | | | Channel Islands. | Means for the British Islands generally. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1. Scotland, E. | 2. England, N.E. | 3. England, E. | 4. Midland Counties. | 5. England, S. | Means for Wheat-producing Districts. | 6. Scotland, W. | 7. England, N.W. | 8. England, S.W. | 9. Ireland, N. | 10. Ireland, S. | Means for the Grazing, &c. Districts. | | |
| | ° | ° | ° | ° | ° | ° | ° | ° | ° | ° | ° | ° | ° | ° | ° |
| Means for 5 years, 1866-70 | 42·1 | 42·1 | 42·5 | 43·6 | 43·4 | 44·2 | 43·2 | 43·2 | 43·8 | 47·0 | 44·0 | 45·2 | 44·6 | — | 43·9 |
| Means for 5 years, 1871-75 | 42·4 | 41·8 | 42·7 | 42·9 | 42·8 | 43·6 | 42·8 | 42·7 | 43·6 | 46·3 | 43·3 | 45·4 | 44·3 | — | 43·6 |
| Means for 5 years, 1876-80 | 41·7 | 41·6 | 42·3 | 42·9 | 42·4 | 44·2 | 42·7 | 42·9 | 43·7 | 47·1 | 43·6 | 45·6 | 44·6 | — | 43·7 |
| Means for 5 years, 1881-85 | 42·6 | 42·0 | 43·4 | 43·4 | 43·0 | 45·1 | 43·4 | 43·5 | 44·1 | 46·5 | 43·9 | 45·6 | 44·7 | 49·1 | 44·1 |
| Means for 5 years, 1886-90 | 42·1 | 41·8 | 42·6 | 42·3 | 42·1 | 44·1 | 42·6 | 43·6 | 43·6 | 45·2 | 44·2 | 45·5 | 44·0 | 48·7 | 43·5 |
| 1891 | 42·0 | 40·8 | 42·3 | 43·6 | 42·5 | 45·6 | 43·0 | 43·4 | 43·7 | 45·9 | 43·3 | 44·8 | 44·2 | 49·4 | 43·6 |
| 1892 | 40·2 | 39·1 | 40·9 | 41·5 | 40·5 | 43·5 | 41·1 | 41·5 | 42·1 | 44·5 | 42·9 | 44·6 | 43·1 | 48·2 | 42·1 |
| 1893 | 41·9 | 42·0 | 44·0 | 43·9 | 43·4 | 45·3 | 43·7 | 44·1 | 45·3 | 46·0 | 44·0 | 45·5 | 45·0 | 49·4 | 44·4 |
| 1894 | 44·0 | 42·7 | 44·7 | 45·5 | 45·2 | 47·4 | 45·1 | 45·6 | 46·7 | 48·0 | 45·6 | 47·3 | 46·6 | 51·2 | 45·9 |
| 1895 | 41·2 | 40·5 | 43·0 | 43·8 | 42·9 | 46·0 | 43·2 | 43·0 | 44·2 | 46·6 | 43·0 | 45·3 | 44·4 | 51·0 | 43·8 |
| Means for 5 years, 1891-95 | 41·9 | 41·0 | 43·0 | 45·7 | 42·9 | 45·6 | 43·2 | 43·5 | 44·4 | 46·2 | 43·8 | 45·5 | 44·7 | 49·8 | 44·0 |
| 1896 | 41·2 | 40·5 | 41·9 | 41·8 | 40·9 | 43·5 | 41·7 | 42·1 | 42·5 | 43·3 | 42·2 | 43·3 | 42·7 | 47·5 | 42·2 |
| 1897 | 43·2 | 42·9 | 45·0 | 44·4 | 44·2 | 47·4 | 44·8 | 45·8 | 46·6 | 48·1 | 46·2 | 48·4 | 47·0 | 51·5 | 45·9 |
| 1898 | 44·3 | 44·2 | 47·0 | 47·4 | 46·7 | 49·3 | 46·9 | 46·8 | 48·1 | 49·5 | 47·1 | 48·8 | 48·1 | 52·7 | 47·5 |
| 1899 | 44·0 | 42·8 | 43·9 | 44·0 | 42·9 | 46·2 | 44·0 | 44·7 | 44·8 | 47·0 | 46·1 | 47·3 | 46·0 | 51·1 | 45·0 |
| Means for 34 years, 1866-99 | 42·2 | 41·8 | 43·0 | 43·3 | 42·9 | 44·7 | 43·1 | 43·4 | 44·1 | 46·5 | 44·0 | 45·7 | 44·7 | — | 43·9 |

## TABLE Ia.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST CORRESPONDING QUARTERS FOR THE THIRTY-FOUR YEARS, 1866 TO 1899.

| | | Wheat Districts. | Grazing, &c. Districts. | Generally. |
|---|---|---|---|---|
| **Rainfall** | Driest | Ins. 3·4 in 1879 | Ins. 5·0 in 1879 | Ins. 4·2 in 1879 |
| | Wettest | 13·1 in 1872 | 18·6 in 1872 | 15·9 in 1872 |
| **Temperature** | Coldest | ° 40·3 in 1887 | ° 41·9 in 1887 | ° 41·1 in 1887 |
| | Warmest | 46·9 in 1898 | 48·1 in 1898 | 47·5 in 1898 |

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TABLE II.—SHOWING THE RAINFALL, ACCUMULATED TEMPERATURE, AND BRIGHT SUNSHINE FOR EACH MONTH, AND THE PROGRESSIVE VALUES FROM THE COMMENCEMENT OF THE YEAR, FOR THE FOURTH QUARTER, 1899.

| YEAR AND MONTHS. | 0. SCOTLAND, N. | | Principal Wheat-producing Districts. | | | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | | | CHANNEL ISLANDS. | | MEANS FOR THE BRITISH ISLANDS GENERALLY. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1. SCOTLAND, E. | | 2. ENGLAND, N.E. | | 3. ENGLAND, E. | | 4. MIDLAND COUNTIES. | | 5. ENGLAND, S. | | MEANS FOR WHEAT-PRODUCING DISTRICTS. | | 6. SCOTLAND, W. | | 7. ENGLAND, N.W. | | 8. ENGLAND, S.W. | | 9. IRELAND, N. | | 10. IRELAND, S. | | MEANS FOR THE GRAZING, &c. DISTRICTS. | | | | | |
| | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. | For the Month. | From Jan. 1. |
| **RAINFALL.—NUMBERS OF DAYS WITH RAIN.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. - | 18 | 184 | 11 | 163 | 9 | 142 | 9 | 129 | 8 | 127 | 7 | 110 | 9 | 135 | 16 | 178 | 10 | 156 | 11 | 141 | 14 | 184 | 11 | 152 | 12 | 160 | 12 | 135 | 11 | 150 |
| Nov. - | 24 | 208 | 18 | 181 | 13 | 155 | 11 | 140 | 11 | 138 | 11 | 121 | 13 | 148 | 21 | 199 | 15 | 171 | 14 | 155 | 19 | 203 | 14 | 166 | 17 | 177 | 13 | 148 | 15 | 165 |
| Dec. - | 25 | 233 | 19 | 200 | 18 | 173 | 18 | 158 | 16 | 154 | 16 | 137 | 17 | 165 | 22 | 221 | 16 | 187 | 20 | 175 | 25 | 228 | 25 | 191 | 22 | 199 | 21 | 169 | 20 | 185 |
| **RAINFALL.—AMOUNTS IN INCHES.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. - | 4·35 | 39·21 | 1·08 | 25·47 | 1·90 | 19·84 | 1·91 | 17·64 | 2·32 | 20·70 | 1·77 | 18·42 | 1·80 | 20·41 | 3·40 | 38·64 | 2·34 | 28·62 | 3·00 | 30·26 | 1·77 | 28·96 | 1·58 | 31·14 | 2·42 | 31·54 | 1·38 | 20·51 | 2·11 | 26·03 |
| Nov. - | 8·02 | 47·23 | 3·97 | 29·44 | 1·47 | 21·31 | 3·10 | 20·74 | 2·36 | 23·06 | 4·53 | 22·95 | 3·09 | 23·50 | 7·22 | 45·86 | 3·57 | 32·19 | 4·16 | 34·42 | 3·79 | 32·75 | 3·90 | 35·03 | 4·53 | 36·07 | 3·79 | 24·30 | 3·81 | 29·84 |
| Dec. - | 6·08 | 53·31 | 3·57 | 33·01 | 2·90 | 24·21 | 1·62 | 22·36 | 2·23 | 25·29 | 2·06 | 25·01 | 2·48 | 25·98 | 5·97 | 51·83 | 3·36 | 35·55 | 4·25 | 38·67 | 5·66 | 38·41 | 7·75 | 42·78 | 5·40 | 41·47 | 4·70 | 29·00 | 3·94 | 33·78 |
| **ACCUMULATED HEAT.—DAY DEGREES ABOVE 42° F.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. - | 178 | 2182 | 188 | 2399 | 190 | 2699 | 224 | 3142 | 210 | 3123 | 289 | 3531 | 216 | 2979 | 180 | 2540 | 202 | 2924 | 270 | 3406 | 214 | 2770 | 238 | 3221 | 221 | 2972 | 373 | 4035 | 219 | 2978 |
| Nov. - | 131 | 2313 | 141 | 2540 | 155 | 2854 | 180 | 3322 | 164 | 3287 | 213 | 3744 | 171 | 3150 | 162 | 2702 | 177 | 3101 | 211 | 3617 | 164 | 2934 | 212 | 3433 | 185 | 3157 | 310 | 4345 | 178 | 3156 |
| Dec. - | 56 | 2369 | 46 | 2586 | 64 | 2918 | 47 | 3369 | 47 | 3334 | 71 | 3815 | 55 | 3205 | 73 | 2775 | 68 | 3169 | 81 | 3698 | 83 | 3017 | 118 | 3551 | 85 | 3242 | 171 | 4516 | 70 | 3226 |
| **ACCUMULATED HEAT.—DAY DEGREES BELOW 42° F.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. - | 6 | 630 | 17 | 694 | 7 | 463 | 22 | 443 | 45 | 523 | 7 | 301 | 20 | 485 | 6 | 420 | 7 | 320 | 3 | 243 | 0 | 325 | 5 | 250 | 4 | 312 | 0 | 81 | 12 | 399 |
| Nov. - | 20 | 650 | 36 | 730 | 13 | 476 | 21 | 464 | 23 | 546 | 4 | 305 | 19 | 504 | 5 | 425 | 3 | 323 | 1 | 244 | 1 | 326 | 0 | 250 | 2 | 314 | 0 | 81 | 11 | 410 |
| Dec. - | 159 | 809 | 239 | 969 | 203 | 679 | 209 | 673 | 243 | 789 | 162 | 467 | 211 | 715 | 150 | 575 | 174 | 497 | 110 | 354 | 98 | 424 | 65 | 315 | 119 | 433 | 32 | 113 | 165 | 575 |
| **BRIGHT SUNSHINE.—NUMBERS OF HOURS.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. - | 69 | 1167 | 91 | 1267 | 97 | 1262 | 133 | 1750 | 108 | 1538 | 143 | 1870 | 114 | 1537 | 84 | 1287 | 125 | 1515 | 125 | 1801 | 116 | 1329 | 123 | 1501 | 116 | 1487 | 147 | 1986 | 116 | 1517 |
| Nov. - | 25 | 1192 | 51 | 1318 | 59 | 1321 | 57 | 1807 | 48 | 1586 | 62 | 1932 | 55 | 1592 | 40 | 1327 | 50 | 1565 | 62 | 1863 | 50 | 1379 | 70 | 1571 | 54 | 1541 | 83 | 2069 | 55 | 1572 |
| Dec. - | 19 | 1211 | 22 | 1340 | 35 | 1356 | 57 | 1864 | 41 | 1627 | 51 | 1983 | 41 | 1633 | 23 | 1350 | 41 | 1606 | 44 | 1907 | 26 | 1405 | 40 | 1611 | 35 | 1576 | 48 | 2117 | 38 | 1610 |
| **BRIGHT SUNSHINE.—PERCENTAGES OF POSSIBLE DURATION.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct. - | 24 | 29 | 31 | 32 | 34 | 33 | 45 | 44 | 36 | 41 | 48 | 48 | 39 | 40 | 29 | 33 | 43 | 39 | 42 | 47 | 40 | 34 | 43 | 39 | 39 | 38 | 49 | 54 | 39 | 39 |
| Nov. - | 11 | 29 | 22 | 32 | 25 | 33 | 23 | 43 | 19 | 40 | 24 | 47 | 23 | 39 | 17 | 33 | 21 | 38 | 25 | 46 | 20 | 34 | 26 | 38 | 22 | 38 | 32 | 53 | 23 | 39 |
| Dec. - | 8 | 27 | 9 | 31 | 13 | 32 | 21 | 42 | 15 | 39 | 19 | 45 | 15 | 38 | 10 | 31 | 15 | 37 | 16 | 44 | 11 | 32 | 15 | 37 | 13 | 36 | 17 | 51 | 14 | 37 |

1899.

## EXPLANATION OF TABLES.

TABLES I. and IA. are merely in continuation of the Tables given in the Quarterly Summaries of the Weekly Weather Reports, 1884-98. The whole of the values for 1878-99, however, have been corrected by information received since they were first published.

TABLE II. In this Table the monthly values for *October* are those for the fortieth to the forty-third weeks in the year; those for *November* are for the forty-fourth to the forty-seventh weeks; those for *December* are for the forty-eighth to the fifty-second weeks.

The figures given in the columns headed "From Jan. 1" are the values for the whole period elapsed since the beginning of the first week of the year.

In the "Means for the Wheat Districts" the values for District 0, and in the "Means for "the Grazing, &c. Districts" the values for the "Channel Islands" are not included.

The Means for the British Islands generally are those for the Wheat Districts and Grazing Districts combined.

# SUMMARY OF THE WEEKLY WEATHER REPORT, 1899.

VOL. XVI. APPENDIX I. VALUES FOR THE WHOLE YEAR. [*Price 4d.*
*New Series.*

## TABLE I.—SUMMARY OF RAINFALL AND MEAN TEMPERATURE FOR THE WHOLE YEAR DURING THE THIRTY-FOUR YEARS, 1866 TO 1899.

| | YEARS. | Principal Wheat-producing Districts. | | | | | | | | | | | | Principal Grazing, &c., Districts. | | | | | | | | | | Channel Islands. | | Means for the British Islands generally. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0. Scotland, N. | | 1. Scotland, E. | | 2. England, N.E. | | 3. England, E. | | 4. Midland Counties. | | 5. England, S. | | Means for Wheat-producing Districts. | | 6. Scotland, W. | | 7. England, N.W. | | 8. England, S.W. | | 9. Ireland, N. | | 10. Ireland, S. | | Means for the Grazing, &c. Districts. | | | |
| | | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. | Days. | Inches. |
| RAINFALL (in inches). | Means for 5 years, 1866-70 | — | 50·4 | — | 32·9 | — | 25·0 | — | 23·8 | — | 27·3 | — | 29·2 | — | 27·6 | — | 43·5 | — | 42·9 | — | 45·4 | — | 41·7 | — | 37·4 | — | 42·2 | — | — | — | 34·9 |
| | Means for 5 years, 1871-75 | — | 47·8 | — | 35·4 | — | 26·5 | — | 24·6 | — | 30·1 | — | 31·4 | — | 29·6 | — | 44·7 | — | 44·0 | — | 52·0 | — | 40·3 | — | 39·6 | — | 44·1 | — | — | — | 36·9 |
| | Means for 5 years, 1876-80 | — | 38·6 | — | 32·0 | — | 29·8 | — | 29·0 | — | 32·2 | — | 32·5 | — | 31·1 | — | 44·2 | — | 41·4 | — | 44·6 | — | 39·6 | — | 41·9 | — | 42·3 | — | — | — | 36·7 |
| | Means for 5 years, 1881-85 | 241 | 37·1 | 198 | 26·4 | 188 | 25·5 | 187 | 27·2 | 186 | 29·0 | 177 | 27·4 | 187 | 27·1 | 216 | 48·1 | 198 | 36·6 | 211 | 40·7 | 236 | 38·6 | 217 | 41·7 | 216 | 41·1 | 222 | 33·8 | 202 | 34·1 |
| | Means for 5 years, 1886-90 | 251 | 44·1 | 203 | 27·7 | 187 | 24·9 | 184 | 23·7 | 176 | 25·6 | 177 | 26·8 | 185 | 25·7 | 207 | 45·7 | 197 | 33·3 | 200 | 37·4 | 223 | 37·9 | 204 | 38·7 | 206 | 38·6 | 217 | 32·0 | 196 | 32·2 |
| | 1891 | 242 | 52·8 | 184 | 30·9 | 181 | 24·6 | 197 | 26·8 | 192 | 30·1 | 190 | 33·2 | 188 | 29·1 | 205 | 49·9 | 186 | 38·3 | 200 | 45·1 | 225 | 35·3 | 204 | 41·5 | 203 | 42·0 | 201 | 36·7 | 197 | 35·6 |
| | 1892 | 253 | 49·8 | 201 | 28·2 | 197 | 25·6 | 180 | 27·2 | 176 | 23·1 | 160 | 24·4 | 183 | 25·7 | 206 | 46·5 | 205 | 37·2 | 192 | 31·1 | 232 | 38·0 | 203 | 40·1 | 208 | 38·6 | 195 | 29·2 | 196 | 32·2 |
| | 1893 | 252 | 57·9 | 199 | 27·3 | 173 | 20·4 | 171 | 21·1 | 164 | 20·8 | 162 | 23·5 | 174 | 22·6 | 205 | 43·1 | 191 | 31·4 | 173 | 33·7 | 217 | 34·0 | 189 | 32·6 | 195 | 35·0 | 185 | 28·4 | 185 | 28·8 |
| | 1894 | 234 | 43·5 | 201 | 33·9 | 208 | 25·8 | 205 | 26·6 | 196 | 27·4 | 196 | 32·1 | 201 | 29·2 | 219 | 49·5 | 213 | 36·3 | 214 | 44·9 | 234 | 38·0 | 212 | 43·5 | 218 | 42·4 | 221 | 38·6 | 210 | 35·8 |
| | 1895 | 237 | 49·3 | 195 | 31·5 | 189 | 27·7 | 165 | 24·2 | 163 | 24·7 | 160 | 24·9 | 174 | 26·6 | 196 | 38·3 | 183 | 32·3 | 177 | 37·3 | 218 | 35·6 | 192 | 38·0 | 193 | 36·3 | 199 | 31·9 | 184 | 31·5 |
| | Means for 5 years, 1891-95 | 244 | 52·7 | 196 | 30·4 | 190 | 24·8 | 184 | 25·2 | 178 | 25·2 | 174 | 27·6 | 184 | 26·6 | 206 | 45·5 | 196 | 35·1 | 191 | 38·4 | 225 | 36·2 | 200 | 39·1 | 204 | 38·9 | 200 | 33·0 | 194 | 32·8 |
| | 1896 | 252 | 56·2 | 213 | 29·5 | 196 | 25·3 | 190 | 24·9 | 184 | 24·6 | 173 | 25·8 | 191 | 26·0 | 216 | 45·4 | 200 | 35·2 | 186 | 33·7 | 226 | 39·2 | 199 | 36·8 | 205 | 38·1 | 208 | 30·2 | 198 | 32·1 |
| | 1897 | 237 | 46·6 | 204 | 30·3 | 183 | 24·4 | 174 | 23·0 | 178 | 28·0 | 168 | 26·7 | 180 | 26·5 | 222 | 47·5 | 199 | 37·1 | 206 | 43·7 | 234 | 41·1 | 219 | 47·8 | 215 | 43·4 | 218 | 35·9 | 201 | 35·0 |
| | 1898 | 262 | 66·1 | 204 | 29·7 | 176 | 21·9 | 156 | 20·3 | 162 | 22·0 | 150 | 21·7 | 170 | 23·1 | 228 | 46·4 | 202 | 33·8 | 188 | 35·6 | 245 | 37·8 | 202 | 39·4 | 213 | 38·6 | 208 | 28·4 | 192 | 30·9 |
| | 1899 | 283 | 53·3 | 200 | 33·0 | 173 | 24·3 | 158 | 22·4 | 154 | 25·2 | 137 | 25·0 | 164 | 26·0 | 221 | 51·9 | 187 | 35·6 | 175 | 38·7 | 228 | 38·4 | 191 | 42·7 | 200 | 41·5 | 169 | 29·1 | 182 | 33·8 |
| | Means for 34 years, 1866-99 | — | 46·4 | — | 30·8 | — | 25·8 | — | 25·2 | — | 27·8 | — | 28·6 | — | 27·6 | — | 45·6 | — | 38·5 | — | 42·5 | — | 39·1 | — | 40·0 | — | 41·1 | — | — | — | 34·4 |
| MEAN TEMPERATURE (in Degrees Fahrenheit). | Means for 5 years, 1866-70 | ° 45·9 | | ° 47·2 | | ° 47·1 | | ° 49·0 | | ° 49·1 | | ° 49·5 | | ° 48·4 | | ° 48·1 | | ° 48·8 | | ° 51·3 | | ° 48·9 | | ° 50·0 | | ° 49·4 | | ° — | | ° 48·9 | |
| | Means for 5 years, 1871-75 | 46·3 | | 47·1 | | 47·4 | | 48·4 | | 48·8 | | 49·3 | | 48·2 | | 48·1 | | 48·6 | | 50·9 | | 48·4 | | 50·3 | | 49·3 | | — | | 48·8 | |
| | Means for 5 years, 1876-80 | 45·4 | | 46·3 | | 47·1 | | 48·3 | | 48·2 | | 49·3 | | 47·8 | | 47·6 | | 48·1 | | 50·6 | | 47·9 | | 50·1 | | 48·9 | | — | | 48·4 | |
| | Means for 5 years, 1881-85 | 45·3 | | 46·6 | | 47·5 | | 48·5 | | 48·2 | | 49·8 | | 48·1 | | 47·4 | | 48·2 | | 49·7 | | 48·0 | | 49·4 | | 48·5 | | 51·6 | | 48·3 | |
| | Means for 5 years, 1886-90 | 45·2 | | 46·1 | | 46·8 | | 47·4 | | 47·3 | | 48·8 | | 47·3 | | 47·1 | | 47·6 | | 48·9 | | 47·9 | | 49·3 | | 48·2 | | 51·2 | | 47·8 | |
| | 1891 | 45·5 | | 45·7 | | 46·5 | | 47·5 | | 47·2 | | 48·9 | | 47·2 | | 47·3 | | 47·8 | | 48·8 | | 47·8 | | 49·0 | | 48·1 | | 51·3 | | 47·7 | |
| | 1892 | 43·9 | | 44·2 | | 45·7 | | 46·8 | | 46·3 | | 48·4 | | 46·3 | | 45·9 | | 46·8 | | 48·4 | | 47·0 | | 48·5 | | 47·3 | | 51·4 | | 46·8 | |
| | 1893 | 46·7 | | 47·3 | | 48·7 | | 49·6 | | 49·8 | | 51·2 | | 49·3 | | 48·9 | | 50·3 | | 51·4 | | 49·8 | | 51·2 | | 50·3 | | 53·9 | | 49·8 | |
| | 1894 | 46·5 | | 46·2 | | 47·6 | | 48·8 | | 48·6 | | 50·4 | | 48·3 | | 48·0 | | 49·3 | | 50·1 | | 48·5 | | 50·0 | | 49·2 | | 52·7 | | 48·8 | |
| | 1895 | 45·0 | | 45·1 | | 47·0 | | 47·8 | | 47·4 | | 49·1 | | 47·3 | | 46·7 | | 47·7 | | 49·0 | | 47·3 | | 48·8 | | 47·9 | | 51·8 | | 47·6 | |
| | Means for 5 years, 1891-95 | 45·5 | | 45·7 | | 47·1 | | 48·1 | | 47·9 | | 49·6 | | 47·7 | | 47·4 | | 48·4 | | 49·5 | | 48·1 | | 49·5 | | 48·6 | | 52·2 | | 48·2 | |
| | 1896 | 46·4 | | 46·9 | | 48·1 | | 48·7 | | 48·5 | | 50·3 | | 48·5 | | 48·3 | | 49·2 | | 50·3 | | 48·7 | | 50·3 | | 49·4 | | 52·9 | | 49·0 | |
| | 1897 | 45·8 | | 46·1 | | 47·9 | | 48·9 | | 48·7 | | 50·9 | | 48·5 | | 48·0 | | 49·1 | | 50·7 | | 48·4 | | 50·5 | | 49·3 | | 53·2 | | 48·9 | |
| | 1898 | 46·9 | | 47·7 | | 49·2 | | 50·0 | | 49·7 | | 51·6 | | 49·6 | | 49·2 | | 50·2 | | 51·4 | | 49·7 | | 51·5 | | 50·4 | | 53·9 | | 50·0 | |
| | 1899 | 46·5 | | 46·6 | | 48·3 | | 49·6 | | 49·2 | | 51·4 | | 49·0 | | 48·3 | | 49·5 | | 51·4 | | 49·3 | | 51·2 | | 49·9 | | 54·3 | | 49·5 | |
| | Means for 34 years, 1866-99 | 45·7 | | 46·5 | | 47·3 | | 48·4 | | 48·4 | | 49·6 | | 48·0 | | 47·7 | | 48·5 | | 50·2 | | 48·3 | | 49·9 | | 48·9 | | — | | 48·5 | |

## TABLE 1A.—SHOWING THE DATES OF THE DRIEST AND WETTEST, AND OF THE COLDEST AND WARMEST YEARS FOR THE THIRTY-FOUR YEARS, 1866 TO 1899.

| | | Wheat Districts. | Grazing, &c., Districts. | Generally. |
|---|---|---|---|---|
| **Rainfall** | Driest | Ins. 21·0 in 1887 | Ins. 30·5 in 1887 | Ins. 25·8 in 1887 |
| | Wettest | 40·2 in 1872 | 58·0 in 1872 | 49·1 in 1872 |
| **Temperature** | Coldest | ° 45·5 in 1879 | ° 46·9 in 1879 | ° 46·2 in 1879 |
| | Warmest | 50·1 in 1868 | 50·7 in 1868 | 50·4 in 1868 |

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# NOTES.

## 1.—Rainfall.

The mean values for the Rainfall in the districts given as Table I. in the various Quarterly Summaries were obtained as follows. Those for the years 1866 to 1877 were derived from observations made at the following stations :—

| Districts. | | Stations. |
|---|---|---|
| 0. SCOTLAND, N. | | Loch Broom. |
| | | Helmsdale. |
| | | Sandwick Manse. |
| 1. SCOTLAND, E. | | Inverness. |
| | | Aberdeen. |
| | | Ballater. |
| | | Logierait. |
| | | Stirling. |
| | | Hawick. |
| 2. ENGLAND, N.E. | | N. Shields. |
| | | York. |
| | | Grimsby. |
| | | Boston. |
| 3. ENGLAND, E. | 1866 to 1875. | Fakenham. |
| | | Beccles. |
| | | Witham. |
| | | Bury St. Edmunds. |
| | 1876 & 1877. | Yarmouth. |
| | | Cambridge. |
| | | Bury St. Edmunds. |
| 4. MIDLAND COUNTIES | | Leicester. |
| | | Derby. |
| | | Tenbury. |
| | | Shiffnal. |
| | | Cirencester. |
| | | Banbury. |
| | | Hitchin. |
| 5. ENGLAND, S. | | Bridport. |
| | | Selborne. |
| | | Maidstone. |
| | | London (Camden Town). |
| 6. SCOTLAND, W. | | Dumfries. |
| | | Ayr. |
| | | Castle Toward. |
| 7. ENGLAND, N.W., and N. WALES | | Llandudno. |
| | | Manchester. |
| | | Skipton. |
| 8. ENGLAND, S.W., and S. WALES | | Barnstaple. |
| | | Bodmir. |
| | | Haverfordwest. |
| | | Rhayader. |
| 9. IRELAND, N. | | Galway. |
| | | Bunninadden, Co. Sligo. (Doo Castle.) |
| | | Waringstown. |
| | | Strabane. |
| 10. IRELAND, S. | | Cork. |
| | | Waterford. |
| | | Killaloe. |
| | | Portarlington. |
| | | Monkstown, Co. Dublin. |

(The values were obtained mainly from Symons' Monthly Meteorological Magazine, supplemented by some of the values contained in the Reports of the Rainfall Committee of the British Association, 1868–1876.)

## 2.—Temperature.

The Temperature values for the years 1866 to 1877 have been obtained from the following stations :—

| Districts. | | Stations. |
|---|---|---|
| 0. SCOTLAND, N. | | Sandwick Manse. |
| | | Stornoway. |
| | | Dunrobin. |
| 1. SCOTLAND, E. | | Culloden. |
| | | Aberdeen. |
| | | Perth. |
| | | Leith. |
| 2. ENGLAND, N.E. | | Bywell. |
| | | N. Shields. |
| | | Hull. |
| 3. ENGLAND, E. | | Royston. |
| | | Holkham. |
| | | Norwich. |
| | | Wisbeach. |
| | | Somerleyton. |
| 4. MIDLAND COUNTIES | | Derby. |
| | | Nottingham. |
| | | Cardington. |
| | | Oxford. |
| 5. ENGLAND, S. | | Marlborough. |
| | | Greenwich. |
| | | Streatley. |
| | | London (Camden Town). |
| | | Weybridge. |
| | | Strathfield Turgiss. |
| | | Osborne. |
| | | Bournemouth. |
| | | Worthing. |
| 6. SCOTLAND, W. | | Greenock. |
| | | Cockermouth. |
| | | Silloth. |
| | | Carlisle. |
| 7. ENGLAND, N.W., and N. WALES | | Stonyhurst. |
| | | Bradford. |
| | | Leeds. |
| | | Eccles. |
| | | Liverpool. |
| | | Llandudno. |
| 8. ENGLAND, S.W., and S. WALES | | Gloucester. |
| | | Taunton. |
| | | Barnstaple. |
| | | Truro. |
| | | Helston. |
| 9. IRELAND, N. | 1866 to 1873. | Belfast. |
| | | Milltown (Banbridge). |
| | | Armagh.† |
| | | Athlone.* |
| | 1874 to 1877. | Moville. |
| | | Milltown. |
| | | Armagh. |
| | | Donaghadee. |
| 10. IRELAND, S. | 1866 to 1873. | Dublin.* |
| | | Curragh Camp. |
| | | Buttevant.* |
| | | Cork. |
| | | Valencia.† |
| | 1874 to 1877. | Kingstown. |
| | | Parsonstown. |
| | | Cork. |
| | | Roche's Point. |
| | | Valencia. |

(The values were obtained mainly from the returns published quarterly by the Registrar General, by the Scottish Meteorological Society (in their Quarterly Journal), and the reports of the Army Medical Department, besides the records of the two Irish observatories, Valencia and Armagh. The returns for Cork were furnished by R. Caulfield, Esq., LL.D.)

For the years 1878 to 1899 the means are obtained from the observations published in the Weekly Weather Report.

* Did not commence till January 1867.

† Did not commence till January 1869.

By Order,

ROBERT H. SCOTT, Secretary.

# WEEKLY WEATHER REPORT, 1899.

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TABLE I.—SHOWING THE WEEKLY AND PROGRESSIVE NUMBERS OF RAINY DAYS IN EACH DISTRICT DURING THE YEAR 1899.

| DATE. — LIMITS OF WEEKS. | Principal Wheat-producing Districts. | | | | | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | | | | | | | Channel Islands. | | Means for the British Islands generally. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0. Scotland, N. | | 1. Scotland, E. | | 2. England, N.E. | | 3. England, E. | | 4. Midland Counties. | | 5. England, S. | | Means for Wheat producing Districts. | | 6. Scotland, W. | | 7. England, N.W. | | 8. England, S.W. | | 9. Ireland, N. | | 10. Ireland, S. | | Means for Grazing, &c. Districts. | | | | | | | | | |
| | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. |
| | Numbers of Days with Rain. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **1899.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. 1-7 | 5 | 5 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 6 | 6 | 6 | 6 | 5 | 5 | | |
| 8-14 | 6 | 11 | 6 | 12 | 4 | 9 | 5 | 10 | 6 | 11 | 5 | 10 | 5 | 10 | 7 | 14 | 6 | 12 | 6 | 12 | 7 | 13 | 7 | 14 | 7 | 13 | 6 | 12 | 6 | 11 | | |
| 15-21 | 7 | 18 | 7 | 19 | 6 | 15 | 6 | 16 | 7 | 18 | 7 | 17 | 7 | 17 | 7 | 21 | 7 | 19 | 7 | 19 | 7 | 20 | 7 | 21 | 7 | 20 | 7 | 19 | 7 | 18 | | |
| 22-28 | 2 | 20 | 2 | 21 | 3 | 18 | 3 | 19 | 2 | 20 | 2 | 19 | 2 | 19 | 1 | 22 | 1 | 20 | 2 | 21 | 2 | 22 | 1 | 22 | 1 | 21 | 2 | 21 | 2 | 20 | | |
| Jan. 29-Feb. 4 | 3 | 23 | 2 | 23 | 5 | 23 | 4 | 23 | 3 | 23 | 3 | 22 | 4 | 23 | 1 | 23 | 3 | 23 | 2 | 23 | 4 | 26 | 3 | 25 | 3 | 24 | 3 | 24 | 4 | 24 | | |
| Feb. 5-11 | 6 | 29 | 6 | 29 | 6 | 29 | 6 | 29 | 7 | 30 | 6 | 28 | 6 | 29 | 7 | 30 | 7 | 30 | 7 | 30 | 7 | 33 | 7 | 32 | 7 | 31 | 6 | 30 | 6 | 30 | | |
| 12-18 | 6 | 35 | 5 | 34 | 4 | 33 | 4 | 33 | 4 | 34 | 4 | 32 | 4 | 33 | 6 | 36 | 5 | 35 | 4 | 34 | 6 | 39 | 5 | 37 | 5 | 36 | 4 | 34 | 5 | 35 | | |
| 19-25 | 0 | 35 | 1 | 35 | 0 | 33 | 0 | 33 | 0 | 34 | 0 | 32 | 0 | 33 | 1 | 37 | 1 | 36 | 1 | 35 | 2 | 41 | 2 | 39 | 1 | 37 | 1 | 35 | 0 | 35 | | |
| Feb. 26-Mar. 4 | 5 | 40 | 2 | 37 | 2 | 35 | 1 | 34 | 1 | 35 | 0 | 32 | 1 | 34 | 3 | 40 | 2 | 38 | 1 | 36 | 3 | 44 | 0 | 39 | 2 | 39 | 1 | 36 | 2 | 37 | | |
| Mar. 5-11 | 6 | 46 | 5 | 42 | 2 | 37 | 2 | 36 | 2 | 37 | 1 | 33 | 2 | 36 | 6 | 46 | 4 | 42 | 4 | 40 | 6 | 50 | 4 | 43 | 5 | 44 | 3 | 39 | 3 | 40 | | |
| 12-18 | 4 | 50 | 1 | 43 | 1 | 38 | 1 | 37 | 0 | 37 | 0 | 33 | 1 | 37 | 2 | 48 | 0 | 42 | 0 | 40 | 1 | 51 | 1 | 44 | 0 | 44 | 0 | 39 | 0 | 40 | | |
| 19-25 | 4 | 54 | 4 | 47 | 6 | 44 | 5 | 42 | 3 | 40 | 2 | 35 | 4 | 41 | 3 | 51 | 4 | 46 | 4 | 44 | 6 | 57 | 3 | 47 | 4 | 48 | 5 | 44 | 4 | 44 | | |
| 26-April 1 | 6 | 60 | 6 | 53 | 4 | 48 | 4 | 46 | 4 | 44 | 3 | 38 | 4 | 45 | 6 | 57 | 5 | 51 | 5 | 49 | 5 | 62 | 4 | 51 | 5 | 53 | 4 | 48 | 5 | 49 | | |
| April 2-8 | 6 | 66 | 6 | 59 | 5 | 53 | 5 | 51 | 5 | 49 | 5 | 43 | 5 | 50 | 6 | 63 | 7 | 58 | 5 | 54 | 7 | 69 | 6 | 57 | 6 | 59 | 5 | 53 | 6 | 55 | | |
| 9-15 | 5 | 71 | 5 | 64 | 6 | 59 | 6 | 57 | 6 | 55 | 6 | 49 | 6 | 56 | 5 | 68 | 6 | 64 | 6 | 60 | 5 | 74 | 6 | 63 | 5 | 64 | 6 | 59 | 5 | 60 | | |
| 16-22 | 4 | 75 | 5 | 69 | 3 | 62 | 2 | 59 | 3 | 58 | 3 | 52 | 3 | 59 | 3 | 71 | 2 | 66 | 4 | 64 | 5 | 79 | 4 | 67 | 4 | 68 | 4 | 63 | 4 | 64 | | |
| 23-29 | 6 | 81 | 6 | 75 | 4 | 66 | 5 | 64 | 5 | 63 | 5 | 57 | 5 | 64 | 6 | 77 | 6 | 72 | 6 | 70 | 6 | 85 | 5 | 72 | 6 | 74 | 5 | 68 | 5 | 69 | | |
| April 30-May 6 | 2 | 83 | 3 | 78 | 3 | 69 | 1 | 65 | 1 | 64 | 1 | 58 | 2 | 66 | 2 | 79 | 2 | 74 | 1 | 71 | 2 | 87 | 1 | 73 | 2 | 76 | 0 | 68 | 2 | 71 | | |
| May 7-13 | 3 | 86 | 4 | 82 | 6 | 75 | 2 | 67 | 4 | 68 | 1 | 59 | 3 | 69 | 5 | 84 | 4 | 78 | 4 | 75 | 4 | 91 | 4 | 77 | 4 | 80 | 2 | 70 | 4 | 75 | | |
| 14-20 | 7 | 93 | 7 | 89 | 6 | 81 | 5 | 72 | 5 | 73 | 5 | 64 | 6 | 75 | 7 | 91 | 7 | 85 | 6 | 81 | 7 | 98 | 6 | 83 | 6 | 86 | 6 | 76 | 6 | 81 | | |
| 21-27 | 2 | 95 | 3 | 92 | 4 | 85 | 5 | 77 | 4 | 77 | 3 | 67 | 4 | 79 | 3 | 94 | 4 | 89 | 4 | 85 | 4 | 102 | 4 | 87 | 4 | 90 | 5 | 81 | 4 | 85 | | |
| May 28-June 3 | 3 | 98 | 1 | 93 | 0 | 85 | 0 | 77 | 0 | 77 | 0 | 67 | 0 | 79 | 2 | 96 | 0 | 89 | 0 | 85 | 1 | 103 | 0 | 87 | 1 | 91 | 0 | 81 | 1 | 86 | | |
| June 4-10 | 2 | 100 | 1 | 94 | 0 | 85 | 0 | 77 | 0 | 77 | 0 | 67 | 0 | 79 | 0 | 96 | 0 | 89 | 0 | 85 | 0 | 103 | 1 | 88 | 0 | 91 | 0 | 81 | 0 | 86 | | |
| 11-17 | 1 | 101 | 0 | 94 | 0 | 85 | 0 | 77 | 0 | 77 | 0 | 67 | 0 | 79 | 1 | 97 | 0 | 89 | 1 | 86 | 1 | 104 | 1 | 89 | 1 | 92 | 1 | 82 | 0 | 86 | | |
| 18-24 | 6 | 107 | 5 | 99 | 5 | 90 | 5 | 82 | 5 | 82 | 4 | 71 | 5 | 84 | 6 | 103 | 5 | 94 | 3 | 89 | 4 | 108 | 3 | 92 | 4 | 96 | 4 | 86 | 5 | 91 | | |
| 25-July 1 | 4 | 111 | 6 | 105 | 5 | 95 | 4 | 86 | 4 | 86 | 4 | 75 | 5 | 89 | 5 | 108 | 5 | 99 | 3 | 92 | 6 | 114 | 5 | 97 | 5 | 101 | 3 | 89 | 5 | 96 | | |
| July 2-8 | 3 | 114 | 3 | 108 | 2 | 97 | 3 | 89 | 2 | 88 | 2 | 77 | 3 | 92 | 3 | 111 | 2 | 101 | 3 | 95 | 4 | 118 | 4 | 101 | 3 | 104 | 2 | 91 | 3 | 99 | | |
| 9-15 | 5 | 119 | 4 | 112 | 3 | 100 | 1 | 90 | 2 | 90 | 1 | 78 | 2 | 94 | 6 | 117 | 4 | 105 | 4 | 99 | 5 | 123 | 5 | 106 | 5 | 109 | 4 | 95 | 4 | 103 | | |
| 16-22 | 3 | 122 | 4 | 116 | 5 | 105 | 2 | 92 | 2 | 92 | 2 | 80 | 3 | 97 | 3 | 120 | 3 | 108 | 1 | 100 | 4 | 127 | 4 | 110 | 3 | 112 | 2 | 97 | 3 | 106 | | |
| 23-29 | 5 | 127 | 3 | 119 | 3 | 108 | 2 | 94 | 1 | 93 | 1 | 81 | 2 | 99 | 4 | 124 | 2 | 110 | 1 | 101 | 3 | 130 | 1 | 111 | 2 | 114 | 1 | 98 | 2 | 108 | | |
| July 30-Aug. 5 | 1 | 128 | 0 | 119 | 1 | 109 | 1 | 95 | 1 | 94 | 1 | 82 | 1 | 100 | 1 | 125 | 2 | 112 | 2 | 103 | 2 | 132 | 2 | 113 | 2 | 116 | 1 | 99 | 2 | 110 | | |
| Aug. 6-12 | 0 | 128 | 1 | 120 | 2 | 111 | 1 | 96 | 1 | 95 | 1 | 83 | 1 | 101 | 1 | 126 | 1 | 113 | 1 | 104 | 1 | 133 | 1 | 114 | 1 | 117 | 1 | 100 | 1 | 111 | | |
| 13-19 | 5 | 133 | 2 | 122 | 1 | 112 | 3 | 99 | 2 | 97 | 0 | 83 | 2 | 103 | 5 | 131 | 5 | 118 | 1 | 105 | 4 | 137 | 1 | 115 | 3 | 120 | 0 | 100 | 2 | 113 | | |
| 20-26 | 1 | 134 | 1 | 123 | 0 | 112 | 0 | 99 | 0 | 97 | 0 | 83 | 0 | 103 | 1 | 132 | 1 | 119 | 1 | 106 | 2 | 139 | 2 | 117 | 1 | 121 | 1 | 101 | 1 | 114 | | |
| Aug. 27-Sept. 2 | 5 | 139 | 6 | 129 | 6 | 118 | 5 | 104 | 6 | 103 | 6 | 89 | 6 | 109 | 6 | 138 | 6 | 125 | 7 | 113 | 6 | 145 | 6 | 123 | 6 | 127 | 6 | 107 | 6 | 120 | | |
| Sept. 3-9 | 6 | 145 | 4 | 133 | 1 | 119 | 3 | 107 | 3 | 106 | 2 | 91 | 3 | 112 | 4 | 142 | 3 | 128 | 2 | 115 | 4 | 149 | 3 | 126 | 3 | 130 | 2 | 109 | 3 | 123 | | |
| 10-16 | 7 | 152 | 6 | 139 | 3 | 122 | 2 | 109 | 2 | 108 | 2 | 93 | 3 | 115 | 6 | 148 | 5 | 133 | 3 | 118 | 7 | 156 | 4 | 130 | 5 | 135 | 3 | 112 | 4 | 127 | | |
| 17-23 | 7 | 159 | 6 | 145 | 5 | 127 | 5 | 114 | 5 | 113 | 4 | 97 | 5 | 120 | 7 | 155 | 6 | 139 | 5 | 123 | 7 | 163 | 5 | 135 | 6 | 141 | 4 | 116 | 6 | 133 | | |
| 24-30 | 7 | 166 | 7 | 152 | 6 | 133 | 6 | 120 | 6 | 119 | 6 | 103 | 6 | 126 | 7 | 162 | 7 | 146 | 7 | 130 | 7 | 170 | 6 | 141 | 7 | 148 | 7 | 123 | 6 | 139 | | |
| Oct. 1-7 | 6 | 172 | 4 | 156 | 4 | 137 | 4 | 124 | 3 | 122 | 4 | 107 | 4 | 130 | 5 | 167 | 3 | 149 | 3 | 133 | 4 | 174 | 2 | 143 | 3 | 151 | 3 | 126 | 4 | 143 | | |
| 8-14 | 6 | 178 | 3 | 159 | 2 | 139 | 2 | 126 | 1 | 123 | 1 | 108 | 2 | 132 | 5 | 172 | 3 | 152 | 2 | 135 | 4 | 178 | 3 | 146 | 3 | 154 | 2 | 128 | 2 | 145 | | |
| 15-21 | 1 | 179 | 0 | 159 | 0 | 139 | 0 | 126 | 0 | 123 | 0 | 108 | 0 | 132 | 1 | 173 | 0 | 152 | 1 | 136 | 1 | 179 | 2 | 148 | 1 | 155 | 2 | 130 | 1 | 146 | | |
| 22-28 | 5 | 184 | 4 | 163 | 3 | 142 | 3 | 129 | 4 | 127 | 2 | 110 | 3 | 135 | 5 | 178 | 4 | 156 | 5 | 141 | 5 | 184 | 4 | 152 | 5 | 160 | 5 | 135 | 4 | 150 | | |
| Oct. 29-Nov. 4 | 7 | 191 | 6 | 169 | 4 | 146 | 5 | 134 | 5 | 132 | 6 | 116 | 5 | 140 | 7 | 185 | 6 | 162 | 6 | 147 | 7 | 191 | 6 | 158 | 6 | 166 | 5 | 140 | 6 | 156 | | |
| Nov. 5-11 | 6 | 197 | 6 | 175 | 5 | 151 | 5 | 139 | 5 | 137 | 5 | 121 | 5 | 145 | 7 | 192 | 6 | 168 | 5 | 152 | 7 | 198 | 6 | 164 | 6 | 172 | 6 | 146 | 6 | 162 | | |
| 12-18 | 4 | 201 | 2 | 177 | 2 | 153 | 0 | 139 | 0 | 137 | 0 | 121 | 1 | 146 | 3 | 195 | 1 | 169 | 1 | 153 | 2 | 200 | 1 | 165 | 2 | 174 | 1 | 147 | 1 | 163 | | |
| 19-25 | 7 | 208 | 4 | 181 | 2 | 155 | 1 | 140 | 1 | 138 | 0 | 121 | 2 | 148 | 4 | 199 | 2 | 171 | 2 | 155 | 3 | 203 | 1 | 166 | 3 | 177 | 1 | 148 | 2 | 165 | | |
| Nov. 26-Dec. 2 | 6 | 214 | 2 | 183 | 1 | 156 | 2 | 142 | 1 | 139 | 1 | 122 | 1 | 149 | 3 | 202 | 2 | 173 | 2 | 157 | 3 | 206 | 3 | 169 | 3 | 180 | 0 | 148 | 2 | 167 | | |
| Dec. 3-9 | 5 | 219 | 5 | 188 | 5 | 161 | 4 | 146 | 4 | 143 | 4 | 126 | 4 | 153 | 6 | 208 | 5 | 178 | 4 | 161 | 7 | 213 | 6 | 175 | 6 | 186 | 5 | 153 | 5 | 172 | | |
| 10-16 | 4 | 223 | 3 | 191 | 4 | 165 | 3 | 149 | 3 | 146 | 1 | 127 | 3 | 156 | 2 | 210 | 2 | 180 | 4 | 165 | 4 | 217 | 5 | 180 | 3 | 189 | 4 | 157 | 3 | 175 | | |
| 17-23 | 4 | 227 | 4 | 195 | 5 | 170 | 4 | 153 | 3 | 149 | 4 | 131 | 4 | 160 | 5 | 215 | 2 | 182 | 4 | 169 | 5 | 222 | 6 | 186 | 4 | 193 | 5 | 162 | 4 | 179 | | |
| Dec. 24-30 | 6 | 233 | 5 | 200 | 3 | 173 | 5 | 158 | 5 | 154 | 6 | 137 | 5 | 165 | 6 | 221 | 5 | 187 | 6 | 175 | 6 | 228 | 5 | 191 | 6 | 199 | 7 | 169 | 6 | 185 | | |

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# TABLE II.—SHOWING THE WEEKLY AND PROGRESSIVE AMOUNTS OF RAINFALL IN EACH DISTRICT DURING THE YEAR 1899.

| DATE — LIMITS OF WEEKS. | 0. Scotland, N. | | Principal Wheat-producing Districts. | | | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | | | Channel Islands. | | Means for the British Islands generally. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1. Scotland, E. | | 2. England, N.E. | | 3. England, E. | | 4. Midland Counties. | | 5. England, S. | | Means for Wheat Producing Districts. | | 6. Scotland, W. | | 7. England, N.W. | | 8. England, S.W. | | 9. Ireland, N. | | 10. Ireland, S. | | Means for Grazing, &c. Districts. | | | | | |
| | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99 | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. |
| | Rainfall in Inches. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **1899.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. 1-7 | 0·76 | 0·76 | 0·66 | 0·66 | 0·44 | 0·44 | 0·38 | 0·38 | 0·55 | 0·55 | 0·49 | 0·49 | 0·50 | 0·50 | 1·28 | 1·28 | 0·80 | 0·80 | 1·20 | 1·20 | 0·99 | 0·99 | 1·19 | 1·19 | 1·09 | 1·09 | 1·43 | 1·43 | 0·80 | 0·80 |
| 8-14 | 1·31 | 2·07 | 0·72 | 1·38 | 0·52 | 0·96 | 0·84 | 1·22 | 1·09 | 1·64 | 1·01 | 1·50 | 0·84 | 1·34 | 1·78 | 3·06 | 1·08 | 1·88 | 2·39 | 3·59 | 0·76 | 1·75 | 1·85 | 3·04 | 1·57 | 2·66 | 1·56 | 2·99 | 1·21 | 2·01 |
| 15-21 | 3·13 | 5·20 | 2·10 | 3·48 | 0·91 | 1·87 | 0·66 | 1·88 | 1·56 | 3·20 | 1·26 | 2·76 | 1·30 | 2·64 | 2·92 | 5·98 | 2·71 | 4·59 | 2·84 | 6·43 | 1·83 | 3·58 | 2·50 | 5·54 | 2·56 | 5·22 | 1·50 | 4·49 | 1·93 | 3·94 |
| 22-28 | 0·21 | 5·41 | 0·18 | 3·66 | 0·37 | 2·24 | 0·16 | 2·04 | 0·16 | 3·36 | 0·09 | 2·85 | 0·19 | 2·83 | 0·07 | 6·05 | 0·18 | 4·77 | 0·32 | 6·75 | 0·30 | 3·88 | 0·20 | 5·74 | 0·22 | 5·44 | 0·19 | 4·68 | 0·21 | 4·15 |
| Jan. 29-Feb. 4 | 0·11 | 5·52 | 0·04 | 3·70 | 0·40 | 2·64 | 0·23 | 2·27 | 0·26 | 3·62 | 0·44 | 3·29 | 0·27 | 3·10 | 0·05 | 6·10 | 0·16 | 4·93 | 0·54 | 7·29 | 0·15 | 4·03 | 0·52 | 6·26 | 0·28 | 5·72 | 0·52 | 5·20 | 0·28 | 4·43 |
| Feb. 5-11 | 1·07 | 6·59 | 1·31 | 5·01 | 0·62 | 3·26 | 0·69 | 2·96 | 1·37 | 4·99 | 1·25 | 4·54 | 1·05 | 4·15 | 1·77 | 7·87 | 1·26 | 6·19 | 2·28 | 9·57 | 1·47 | 5·50 | 2·84 | 9·10 | 1·92 | 7·64 | 1·28 | 6·48 | 1·49 | 5·92 |
| 12-18 | 1·49 | 8·08 | 0·82 | 5·83 | 0·32 | 3·58 | 0·46 | 3·42 | 0·85 | 5·84 | 0·80 | 5·34 | 0·65 | 4·80 | 1·05 | 8·92 | 0·58 | 6·77 | 1·47 | 11·04 | 0·70 | 6·20 | 1·13 | 10·23 | 0·99 | 8·63 | 0·65 | 7·13 | 0·82 | 6·74 |
| 19-25 | 0·01 | 8·09 | 0·01 | 5·84 | 0·01 | 3·59 | 0·02 | 3·44 | 0·01 | 5·85 | 0·01 | 5·35 | 0·01 | 4·81 | 0·07 | 8·99 | 0·12 | 6·89 | 0·16 | 11·20 | 0·23 | 6·43 | 0·19 | 10·42 | 0·16 | 8·79 | 0·16 | 7·29 | 0·09 | 6·83 |
| Feb. 26-Mar. 4 | 0·89 | 8·98 | 0·06 | 5·90 | 0·07 | 3·66 | 0·05 | 3·49 | 0·07 | 5·92 | 0·01 | 5·36 | 0·05 | 4·86 | 0·25 | 9·24 | 0·10 | 6·99 | 0·04 | 11·24 | 0·11 | 6·54 | 0·03 | 10·45 | 0·11 | 8·90 | 0·03 | 7·32 | 0·08 | 6·91 |
| Mar. 5-11 | 1·37 | 10·35 | 0·55 | 6·45 | 0·19 | 3·85 | 0·12 | 3·61 | 0·22 | 6·14 | 0·17 | 5·53 | 0·25 | 5·11 | 0·82 | 10·06 | 0·44 | 7·43 | 0·30 | 11·54 | 0·55 | 7·09 | 0·60 | 11·05 | 0·54 | 9·44 | 0·46 | 7·78 | 0·39 | 7·30 |
| 12-18 | 0·38 | 10·73 | 0·03 | 6·48 | 0·04 | 3·89 | 0·04 | 3·65 | 0·00 | 6·14 | 0·00 | 5·53 | 0·02 | 5·13 | 0·05 | 10·11 | 0·00 | 7·43 | 0·01 | 11·55 | 0·02 | 7·11 | 0·02 | 11·07 | 0·02 | 9·46 | 0·00 | 7·78 | 0·02 | 7·32 |
| 19-25 | 0·56 | 11·29 | 0·73 | 7·21 | 0·99 | 4·88 | 0·64 | 4·29 | 0·36 | 6·50 | 0·28 | 5·81 | 0·60 | 5·73 | 0·82 | 10·93 | 0·78 | 8·21 | 0·60 | 12·15 | 0·81 | 7·92 | 0·80 | 11·67 | 0·72 | 10·18 | 0·15 | 7·93 | 0·66 | 7·98 |
| 26-Apr. 1 | 2·43 | 13·72 | 1·17 | 8·38 | 0·44 | 5·32 | 0·27 | 4·56 | 0·33 | 6·83 | 0·12 | 5·93 | 0·47 | 6·20 | 2·14 | 13·07 | 0·68 | 8·89 | 0·32 | 12·47 | 0·97 | 8·89 | 0·85 | 12·52 | 1·00 | 11·18 | 0·14 | 8·07 | 0·74 | 8·72 |
| April 2-8 | 1·55 | 15·27 | 1·06 | 9·44 | 0·42 | 5·74 | 0·76 | 5·32 | 0·60 | 7·43 | 0·38 | 6·31 | 0·64 | 6·84 | 1·55 | 14·62 | 1·02 | 9·91 | 0·84 | 13·31 | 1·22 | 10·11 | 0·80 | 13·32 | 1·09 | 12·27 | 0·38 | 8·45 | 0·87 | 9·59 |
| 9-15 | 0·78 | 16·05 | 0·65 | 10·09 | 0·89 | 6·63 | 0·85 | 6·17 | 0·87 | 8·30 | 1·01 | 7·32 | 0·85 | 7·69 | 1·16 | 15·78 | 1·24 | 11·15 | 1·27 | 14·58 | 1·09 | 11·20 | 0·83 | 14·15 | 1·12 | 13·39 | 1·02 | 9·47 | 0·98 | 10·57 |
| 16-22 | 0·64 | 16·69 | 0·54 | 10·63 | 0·18 | 6·81 | 0·21 | 6·38 | 0·20 | 8·50 | 0·64 | 7·96 | 0·36 | 8·05 | 0·68 | 16·46 | 0·14 | 11·29 | 0·73 | 15·31 | 0·83 | 12·03 | 1·19 | 15·34 | 0·71 | 14·10 | 0·45 | 9·92 | 0·54 | 11·11 |
| 23-29 | 1·21 | 17·90 | 0·90 | 11·53 | 0·51 | 7·32 | 0·55 | 6·93 | 0·47 | 8·97 | 0·74 | 8·70 | 0·64 | 8·69 | 1·20 | 17·66 | 0·91 | 12·20 | 0·89 | 16·20 | 1·04 | 13·07 | 0·76 | 16·10 | 0·96 | 15·06 | 0·81 | 10·73 | 0·80 | 11·91 |
| April 30-May 6 | 0·15 | 18·05 | 0·34 | 11·87 | 0·54 | 7·86 | 0·01 | 6·94 | 0·04 | 9·01 | 0·02 | 8·72 | 0·19 | 8·88 | 0·53 | 18·19 | 0·20 | 12·40 | 0·03 | 16·23 | 0·17 | 13·24 | 0·02 | 16·12 | 0·19 | 15·25 | 0·00 | 10·73 | 0·19 | 12·10 |
| May 7-13 | 0·17 | 18·22 | 0·81 | 12·68 | 1·22 | 9·08 | 0·20 | 7·14 | 0·59 | 9·60 | 0·06 | 8·78 | 0·58 | 9·46 | 0·80 | 18·99 | 0·66 | 13·06 | 0·58 | 16·81 | 0·60 | 13·84 | 0·51 | 16·63 | 0·63 | 15·88 | 0·21 | 10·94 | 0·61 | 12·71 |
| 14-20 | 2·20 | 20·42 | 1·98 | 14·66 | 0·84 | 9·92 | 1·22 | 8·36 | 0·85 | 10·45 | 0·83 | 9·61 | 1·14 | 10·60 | 2·42 | 21·41 | 0·94 | 14·00 | 1·37 | 18·18 | 1·45 | 15·29 | 1·91 | 18·54 | 1·62 | 17·50 | 1·11 | 12·05 | 1·38 | 14·09 |
| 21-27 | 0·12 | 20·54 | 0·17 | 14·83 | 0·53 | 10·45 | 0·68 | 9·04 | 0·77 | 11·22 | 0·30 | 9·91 | 0·49 | 11·09 | 0·40 | 21·81 | 0·75 | 14·75 | 0·69 | 18·87 | 0·82 | 16·11 | 0·72 | 19·26 | 0·67 | 18·17 | 0·87 | 12·92 | 0·58 | 14·67 |
| May 28-June 3 | 0·40 | 20·94 | 0·05 | 14·88 | 0·00 | 10·45 | 0·00 | 9·04 | 0·00 | 11·22 | 0·00 | 9·91 | 0·01 | 11·10 | 0·09 | 21·90 | 0·00 | 14·75 | 0·00 | 18·87 | 0·04 | 16·15 | 0·02 | 19·28 | 0·03 | 18·20 | 0·00 | 12·92 | 0·01 | 14·68 |
| June 4-10 | 0·23 | 21·17 | 0·03 | 14·91 | 0·00 | 10·45 | 0·00 | 9·04 | 0·00 | 11·22 | 0·00 | 9·91 | 0·01 | 11·11 | 0·01 | 21·91 | 0·00 | 14·75 | 0·04 | 18·91 | 0·01 | 16·16 | 0·08 | 19·36 | 0·03 | 18·23 | 0·00 | 12·92 | 0·02 | 14·70 |
| 11-17 | 0·21 | 21·38 | 0·02 | 14·93 | 0·00 | 10·45 | 0·00 | 9·04 | 0·00 | 11·22 | 0·00 | 9·91 | 0·00 | 11·11 | 0·18 | 22·09 | 0·08 | 14·83 | 0·11 | 19·02 | 0·47 | 16·63 | 0·34 | 19·70 | 0·23 | 18·46 | 0·17 | 13·09 | 0·12 | 14·82 |
| 18-24 | 0·64 | 22·02 | 0·54 | 15·47 | 0·83 | 11·28 | 0·49 | 9·53 | 0·93 | 12·15 | 0·51 | 10·42 | 0·66 | 11·77 | 0·67 | 22·76 | 1·09 | 15·92 | 0·80 | 19·82 | 0·51 | 17·14 | 0·77 | 20·47 | 0·77 | 19·23 | 0·76 | 13·85 | 0·72 | 15·54 |
| 25-July 1 | 0·64 | 22·66 | 1·30 | 16·77 | 1·09 | 12·37 | 1·03 | 10·56 | 1·09 | 13·24 | 0·83 | 11·25 | 1·07 | 12·84 | 2·41 | 25·17 | 1·42 | 17·34 | 0·73 | 20·55 | 1·71 | 18·85 | 0·79 | 21·26 | 1·41 | 20·64 | 0·48 | 14·33 | 1·24 | 16·78 |
| July 2-8 | 0·44 | 23·10 | 0·47 | 17·24 | 0·45 | 12·82 | 0·34 | 10·90 | 0·21 | 13·45 | 0·07 | 11·32 | 0·31 | 13·15 | 0·23 | 25·40 | 0·21 | 17·55 | 0·13 | 20·68 | 0·27 | 19·12 | 0·26 | 21·52 | 0·22 | 20·86 | 0·03 | 14·36 | 0·26 | 17·04 |
| 9-15 | 0·91 | 24·01 | 1·09 | 18·33 | 0·34 | 13·16 | 0·06 | 10·96 | 0·21 | 13·66 | 0·09 | 11·41 | 0·36 | 13·51 | 1·80 | 27·20 | 0·92 | 18·47 | 0·91 | 21·59 | 0·91 | 20·03 | 1·36 | 22·88 | 1·18 | 22·04 | 0·96 | 15·32 | 0·77 | 17·81 |
| 16-22 | 0·28 | 24·29 | 0·77 | 19·10 | 0·99 | 14·15 | 0·43 | 11·39 | 0·33 | 13·99 | 0·69 | 12·10 | 0·64 | 14·15 | 0·40 | 27·60 | 1·15 | 19·62 | 0·37 | 21·96 | 0·39 | 20·42 | 0·98 | 23·86 | 0·66 | 22·70 | 0·23 | 15·55 | 0·65 | 18·46 |
| 23-29 | 1·33 | 25·62 | 0·30 | 19·40 | 0·15 | 14·30 | 0·69 | 12·08 | 0·07 | 14·06 | 0·22 | 12·32 | 0·28 | 14·43 | 0·80 | 28·20 | 0·08 | 19·70 | 0·08 | 22·04 | 0·22 | 20·64 | 0·06 | 23·92 | 0·21 | 22·91 | 0·01 | 15·56 | 0·25 | 18·71 |
| July 30-Aug. 5 | 0·02 | 25·64 | 0·01 | 19·41 | 0·02 | 14·32 | 0·01 | 12·09 | 0·03 | 14·09 | 0·22 | 12·54 | 0·06 | 14·49 | 0·04 | 28·24 | 0·28 | 19·98 | 0·29 | 22·33 | 0·37 | 21·01 | 0·70 | 24·62 | 0·34 | 23·25 | 0·01 | 15·57 | 0·20 | 18·91 |
| Aug. 6-12 | 0·00 | 25·64 | 0·09 | 19·50 | 0·10 | 14·42 | 0·02 | 12·11 | 0·16 | 14·25 | 0·08 | 12·62 | 0·09 | 14·58 | 0·18 | 28·42 | 0·12 | 20·10 | 0·48 | 22·81 | 0·25 | 21·26 | 0·50 | 25·12 | 0·31 | 23·56 | 0·00 | 15·57 | 0·20 | 19·11 |
| 13-19 | 0·73 | 26·37 | 0·07 | 19·57 | 0·07 | 14·49 | 0·49 | 12·60 | 0·35 | 14·60 | 0·21 | 12·83 | 0·24 | 14·82 | 0·42 | 28·84 | 0·35 | 20·45 | 0·07 | 22·88 | 0·34 | 21·60 | 0·22 | 25·34 | 0·28 | 23·84 | 0·00 | 15·57 | 0·26 | 19·37 |
| 20-26 | 0·17 | 26·54 | 0·14 | 19·71 | 0·00 | 14·49 | 0·01 | 12·61 | 0·03 | 14·63 | 0·00 | 12·83 | 0·03 | 14·85 | 0·12 | 28·96 | 0·06 | 20·51 | 0·14 | 23·02 | 0·34 | 21·94 | 0·81 | 26·15 | 0·29 | 24·13 | 0·19 | 15·76 | 0·16 | 19·53 |
| Aug. 27-Sept. 2 | 0·69 | 27·23 | 1·00 | 20·71 | 0·88 | 15·37 | 0·45 | 13·06 | 0·66 | 15·29 | 0·92 | 13·75 | 0·78 | 15·63 | 0·99 | 29·95 | 1·21 | 21·72 | 1·45 | 24·47 | 1·31 | 23·25 | 1·36 | 27·51 | 1·26 | 25·39 | 0·77 | 16·53 | 1·02 | 20·55 |
| Sept. 3-9 | 0·79 | 28·02 | 0·16 | 20·87 | 0·06 | 15·43 | 0·54 | 13·60 | 1·17 | 16·46 | 0·79 | 14·54 | 0·54 | 16·17 | 0·32 | 30·27 | 0·33 | 22·05 | 0·21 | 24·68 | 0·38 | 23·63 | 0·21 | 27·72 | 0·29 | 25·68 | 0·15 | 16·68 | 0·42 | 20·97 |
| 10-16 | 1·70 | 29·72 | 0·78 | 21·65 | 0·40 | 15·83 | 0·31 | 13·91 | 0·23 | 16·69 | 0·19 | 14·73 | 0·38 | 16·55 | 0·95 | 31·22 | 0·70 | 22·75 | 0·23 | 24·91 | 0·56 | 24·19 | 0·31 | 28·03 | 0·55 | 26·23 | 0·06 | 16·74 | 0·47 | 21·44 |
| 17-23 | 3·27 | 32·99 | 0·73 | 22·38 | 0·83 | 16·66 | 0·57 | 14·48 | 0·62 | 17·31 | 0·43 | 15·16 | 0·64 | 17·19 | 2·30 | 33·52 | 2·08 | 24·83 | 0·59 | 25·50 | 1·54 | 25·73 | 0·65 | 28·68 | 1·43 | 27·66 | 0·56 | 17·30 | 1·03 | 22·48 |
| 24-30 | 1·87 | 34·86 | 2·01 | 24·39 | 1·28 | 17·94 | 1·25 | 15·73 | 1·07 | 18·38 | 1·49 | 16·65 | 1·42 | 18·61 | 1·72 | 35·24 | 1·45 | 26·28 | 1·76 | 27·26 | 1·46 | 27·19 | 0·88 | 29·56 | 1·46 | 29·12 | 1·83 | 19·13 | 1·44 | 23·92 |
| Oct. 1-7 | 1·39 | 36·25 | 0·59 | 24·98 | 1·33 | 19·27 | 0·80 | 16·53 | 1·04 | 19·42 | 0·80 | 17·45 | 0·91 | 19·52 | 1·21 | 36·45 | 0·93 | 27·21 | 1·14 | 28·40 | 0·32 | 27·51 | 0·28 | 29·84 | 0·78 | 29·90 | 0·40 | 19·53 | 0·84 | 24·76 |
| 8-14 | 1·79 | 38·04 | 0·28 | 25·26 | 0·25 | 19·52 | 0·14 | 16·67 | 0·33 | 19·75 | 0·11 | 17·56 | 0·23 | 19·75 | 1·04 | 37·49 | 0·72 | 27·93 | 0·32 | 28·72 | 0·77 | 28·28 | 0·51 | 30·35 | 0·67 | 30·57 | 0·13 | 19·66 | 0·45 | 25·21 |
| 15-21 | 0·05 | 38·09 | 0·00 | 25·26 | 0·02 | 19·54 | 0·03 | 16·70 | 0·02 | 19·77 | 0·00 | 17·56 | 0·01 | 19·76 | 0·02 | 37·51 | 0·00 | 27·93 | 0·02 | 28·74 | 0·01 | 28·29 | 0·23 | 30·58 | 0·06 | 30·63 | 0·03 | 19·69 | 0·04 | 25·25 |
| 22-28 | 1·12 | 39·21 | 0·21 | 25·47 | 0·30 | 19·84 | 0·94 | 17·64 | 0·93 | 20·70 | 0·86 | 18·42 | 0·65 | 20·41 | 1·13 | 38·64 | 0·69 | 28·62 | 1·52 | 30·26 | 0·67 | 28·96 | 0·56 | 31·14 | 0·91 | 31·54 | 0·82 | 20·51 | 0·78 | 26·03 |
| Oct. 29-Nov. 4 | 2·92 | 42·13 | 1·99 | 27·46 | 0·60 | 20·44 | 1·65 | 19·29 | 1·26 | 21·96 | 2·09 | 20·51 | 1·52 | 21·93 | 3·32 | 41·96 | 2·25 | 30·87 | 2·26 | 32·52 | 1·67 | 30·63 | 2·26 | 33·40 | 2·35 | 33·89 | 1·72 | 22·23 | 1·94 | 27·97 |
| Nov. 5-11 | 2·11 | 44·24 | 1·59 | 29·05 | 0·58 | 21·02 | 1·40 | 20·69 | 1·06 | 23·02 | 2·42 | 22·93 | 1·41 | 23·34 | 2·62 | 44·58 | 1·22 | 32·09 | 1·82 | 34·34 | 1·59 | 32·22 | 1·57 | 34·97 | 1·77 | 35·66 | 2·02 | 24·25 | 1·59 | 29·56 |
| 12-18 | 1·13 | 45·37 | 0·17 | 29·22 | 0·12 | 21·14 | 0·01 | 20·70 | 0·01 | 23·03 | 0·01 | 22·94 | 0·07 | 23·41 | 0·58 | 45·16 | 0·06 | 32·15 | 0·02 | 34·36 | 0·43 | 32·65 | 0·05 | 35·01 | 0·23 | 35·89 | 0·02 | 24·27 | 0·15 | 29·71 |
| 19-25 | 1·86 | 47·23 | 0·22 | 29·44 | 0·17 | 21·31 | 0·04 | 20·74 | 0·03 | 23·06 | 0·01 | 22·95 | 0·09 | 23·50 | 0·70 | 45·86 | 0·04 | 32·19 | 0·06 | 34·42 | 0·10 | 32·75 | 0·02 | 35·03 | 0·18 | 36·07 | 0·03 | 24·30 | 0·13 | 29·84 |
| Nov. 26-Dec. 2 | 1·74 | 48·97 | 0·08 | 29·52 | 0·02 | 21·33 | 0·15 | 20·89 | 0·18 | 23·24 | 0·28 | 23·23 | 0·14 | 23·64 | 1·00 | 46·86 | 0·44 | 32·63 | 0·26 | 34·68 | 0·36 | 33·11 | 0·47 | 35·50 | 0·51 | 36·58 | 0·00 | 24·30 | 0·33 | 30·17 |
| Dec. 3-9 | 1·51 | 50·48 | 1·49 | 31·01 | 1·05 | 22·58 | 0·63 | 21·52 | 0·47 | 23·71 | 0·30 | 23·53 | 0·83 | 24·47 | 1·91 | 48·77 | 1·06 | 33·69 | 0·48 | 35·16 | 1·30 | 34·41 | 1·03 | 36·53 | 1·16 | 37·74 | 0·94 | 25·24 | 0·99 | 31·16 |
| 10-16 | 0·74 | 51·22 | 0·44 | 31·45 | 0·35 | 22·93 | 0·21 | 21·73 | 0·29 | 24·00 | 0·20 | 23·73 | 0·30 | 24·77 | 0·78 | 49·55 | 0·23 | 33·92 | 0·93 | 36·09 | 1·33 | 35·74 | 2·25 | 38·78 | 1·10 | 38·84 | 1·25 | 26·49 | 0·70 | 31·86 |
| 17-23 | 0·53 | 51·75 | 0·66 | 32·11 | 0·62 | 23·55 | 0·17 | 21·90 | 0·29 | 24·29 | 0·22 | 23·95 | 0·39 | 25·16 | 1·03 | 50·58 | 0·32 | 34·24 | 0·43 | 36·52 | 1·08 | 36·82 | 2·17 | 40·95 | 1·01 | 39·85 | 0·69 | 27·18 | 0·70 | 32·56 |
| Dec. 24-30 | 1·56 | 53·31 | 0·90 | 33·01 | 0·66 | 24·21 | 0·46 | 22·36 | 1·00 | 25·29 | 1·06 | 25·01 | 0·82 | 25·98 | 1·25 | 51·83 | 1·31 | 35·55 | 2·15 | 38·67 | 1·59 | 38·41 | 1·83 | 42·78 | 1·62 | 41·47 | 1·82 | 29·00 | 1·22 | 33·78 |

# TABLE III.—SHOWING THE WEEKLY AND PROGRESSIVE VALUES OF ACCUMULATED HEAT ABOVE 42° F. IN EACH DISTRICT DURING THE YEAR 1899.

| DATE. — LIMITS OF WEEKS. | 0. SCOTLAND, N. | | Principal Wheat-producing Districts. | | | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | | | CHANNEL ISLANDS. | | MEANS FOR THE BRITISH ISLANDS GENERALLY. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1. SCOTLAND, E. | | 2. ENGLAND, N.E. | | 3. ENGLAND, E. | | 4. MIDLAND COUNTIES. | | 5. ENGLAND, S. | | MEANS FOR WHEAT PRODUCING DISTRICTS. | | 6. SCOTLAND, W. | | 7. ENGLAND, N.W. | | 8. ENGLAND, S.W. | | 9. IRELAND, N. | | 10. IRELAND, S. | | MEANS FOR GRAZING, &C. DISTRICTS. | | | | | |
| | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. |
| | DAY-DEGREES ABOVE 42° FAHRENHEIT. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **1899.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. 1-7 | 1 | 1 | 0 | 0 | 3 | 3 | 10 | 10 | 9 | 9 | 24 | 24 | 9 | 9 | 6 | 6 | 11 | 11 | 28 | 28 | 10 | 10 | 30 | 30 | 17 | 17 | 45 | 45 | 13 | 13 |
| 8-14 | 4 | 5 | 3 | 3 | 10 | 13 | 26 | 36 | 26 | 35 | 35 | 59 | 20 | 29 | 10 | 16 | 24 | 35 | 35 | 63 | 11 | 21 | 29 | 59 | 22 | 39 | 55 | 100 | 21 | 34 |
| 15-21 | 0 | 5 | 1 | 4 | 31 | 44 | 39 | 75 | 37 | 72 | 37 | 96 | 29 | 58 | 24 | 40 | 32 | 67 | 39 | 102 | 26 | 47 | 38 | 97 | 32 | 71 | 61 | 161 | 30 | 64 |
| 22-28 | 0 | 5 | 0 | 4 | 0 | 44 | 4 | 79 | 0 | 72 | 3 | 99 | 2 | 60 | 0 | 40 | 0 | 67 | 0 | 102 | 0 | 47 | 5 | 102 | 1 | 72 | 19 | 180 | 2 | 66 |
| Jan. 29-Feb. 4 | 0 | 5 | 0 | 4 | 0 | 44 | 0 | 79 | 0 | 72 | 0 | 99 | 0 | 60 | 0 | 40 | 0 | 67 | 0 | 102 | 0 | 47 | 2 | 104 | 1 | 73 | 8 | 188 | 1 | 67 |
| Feb. 5-11 | 3 | 8 | 4 | 8 | 25 | 69 | 25 | 104 | 29 | 101 | 36 | 135 | 24 | 84 | 10 | 50 | 27 | 94 | 41 | 143 | 23 | 70 | 36 | 140 | 27 | 100 | 65 | 253 | 25 | 92 |
| 12-18 | 19 | 27 | 22 | 30 | 27 | 96 | 33 | 137 | 33 | 134 | 33 | 168 | 29 | 113 | 22 | 72 | 30 | 124 | 33 | 176 | 23 | 93 | 29 | 169 | 27 | 127 | 43 | 296 | 28 | 120 |
| 19-25 | 17 | 44 | 12 | 42 | 11 | 107 | 13 | 150 | 19 | 153 | 29 | 197 | 17 | 130 | 12 | 84 | 17 | 141 | 28 | 204 | 15 | 108 | 8 | 177 | 16 | 143 | 35 | 331 | 17 | 137 |
| Feb. 26-Mar. 4 | 14 | 58 | 18 | 60 | 17 | 124 | 18 | 168 | 18 | 171 | 21 | 218 | 19 | 149 | 15 | 99 | 13 | 154 | 19 | 223 | 25 | 133 | 33 | 210 | 21 | 164 | 34 | 365 | 20 | 157 |
| Mar. 5-11 | 10 | 68 | 13 | 73 | 18 | 142 | 20 | 188 | 20 | 191 | 20 | 238 | 18 | 167 | 13 | 112 | 16 | 170 | 19 | 242 | 17 | 150 | 31 | 241 | 19 | 183 | 31 | 396 | 19 | 176 |
| 12-18 | 31 | 99 | 45 | 118 | 48 | 190 | 40 | 228 | 51 | 242 | 42 | 280 | 45 | 212 | 40 | 152 | 40 | 210 | 48 | 290 | 45 | 195 | 48 | 289 | 44 | 227 | 51 | 447 | 45 | 221 |
| 19-25 | 0 | 99 | 0 | 118 | 0 | 190 | 0 | 228 | 0 | 242 | 0 | 280 | 0 | 212 | 0 | 152 | 0 | 210 | 2 | 292 | 4 | 199 | 10 | 299 | 3 | 230 | 10 | 457 | 1 | 222 |
| 26-April 1 | 17 | 116 | 31 | 149 | 39 | 229 | 49 | 277 | 53 | 295 | 52 | 332 | 45 | 257 | 32 | 184 | 44 | 254 | 55 | 347 | 52 | 251 | 70 | 369 | 51 | 281 | 64 | 521 | 48 | 270 |
| April 2-8 | 26 | 142 | 34 | 183 | 39 | 268 | 49 | 326 | 45 | 340 | 50 | 382 | 43 | 300 | 30 | 214 | 39 | 293 | 48 | 395 | 35 | 286 | 55 | 424 | 41 | 322 | 63 | 584 | 42 | 312 |
| 9-15 | 13 | 155 | 12 | 195 | 12 | 280 | 31 | 357 | 29 | 369 | 35 | 417 | 24 | 324 | 15 | 229 | 21 | 314 | 31 | 426 | 25 | 311 | 33 | 457 | 25 | 347 | 40 | 624 | 25 | 337 |
| 16-22 | 7 | 162 | 12 | 207 | 20 | 300 | 36 | 393 | 25 | 394 | 37 | 454 | 26 | 350 | 17 | 246 | 26 | 340 | 36 | 462 | 26 | 337 | 36 | 493 | 28 | 375 | 41 | 665 | 27 | 364 |
| 23-29 | 35 | 197 | 45 | 252 | 48 | 348 | 50 | 443 | 48 | 442 | 53 | 507 | 49 | 399 | 43 | 289 | 46 | 386 | 50 | 512 | 46 | 383 | 64 | 557 | 50 | 425 | 66 | 731 | 49 | 413 |
| Apr. 30-May 6 | 25 | 222 | 20 | 272 | 26 | 374 | 36 | 479 | 45 | 487 | 46 | 553 | 34 | 433 | 37 | 326 | 38 | 424 | 46 | 558 | 43 | 426 | 53 | 610 | 43 | 468 | 63 | 794 | 39 | 452 |
| May 7-13 | 45 | 267 | 42 | 314 | 29 | 403 | 59 | 538 | 54 | 541 | 65 | 618 | 50 | 483 | 51 | 377 | 47 | 471 | 60 | 618 | 50 | 476 | 55 | 665 | 52 | 520 | 79 | 873 | 51 | 503 |
| 14-20 | 29 | 296 | 37 | 351 | 62 | 465 | 82 | 620 | 72 | 613 | 81 | 699 | 67 | 550 | 41 | 418 | 62 | 533 | 64 | 682 | 45 | 521 | 52 | 717 | 53 | 573 | 81 | 954 | 60 | 563 |
| 21-27 | 32 | 328 | 30 | 381 | 28 | 493 | 45 | 665 | 45 | 658 | 66 | 765 | 43 | 593 | 35 | 453 | 41 | 574 | 66 | 748 | 42 | 563 | 64 | 781 | 50 | 623 | 82 | 1036 | 46 | 609 |
| May 28-June 3 | 66 | 394 | 83 | 464 | 94 | 587 | 81 | 746 | 90 | 748 | 98 | 863 | 89 | 682 | 77 | 530 | 86 | 660 | 88 | 836 | 90 | 653 | 88 | 869 | 86 | 709 | 101 | 1137 | 88 | 697 |
| June 4-10 | 81 | 475 | 106 | 570 | 104 | 691 | 106 | 852 | 120 | 868 | 134 | 997 | 114 | 796 | 118 | 648 | 116 | 776 | 138 | 974 | 115 | 768 | 137 | 1006 | 125 | 834 | 140 | 1277 | 120 | 817 |
| 11-17 | 106 | 581 | 111 | 681 | 81 | 772 | 81 | 933 | 105 | 973 | 102 | 1099 | 96 | 892 | 123 | 771 | 117 | 893 | 122 | 1096 | 120 | 888 | 136 | 1142 | 124 | 958 | 125 | 1402 | 110 | 927 |
| 18-24 | 92 | 673 | 97 | 778 | 107 | 879 | 118 | 1051 | 114 | 1087 | 127 | 1226 | 113 | 1005 | 98 | 869 | 115 | 1008 | 113 | 1209 | 88 | 976 | 94 | 1236 | 101 | 1059 | 120 | 1522 | 107 | 1034 |
| 25-July 1 | 86 | 759 | 97 | 875 | 111 | 990 | 129 | 1180 | 129 | 1216 | 138 | 1364 | 121 | 1126 | 97 | 966 | 120 | 1128 | 124 | 1333 | 109 | 1085 | 120 | 1356 | 114 | 1173 | 130 | 1652 | 117 | 1151 |
| July 2-8 | 102 | 861 | 113 | 988 | 123 | 1113 | 129 | 1309 | 126 | 1342 | 137 | 1501 | 125 | 1251 | 117 | 1083 | 119 | 1247 | 123 | 1456 | 116 | 1201 | 125 | 1481 | 120 | 1293 | 127 | 1779 | 123 | 1274 |
| 9-15 | 100 | 961 | 111 | 1099 | 143 | 1256 | 161 | 1470 | 151 | 1493 | 149 | 1650 | 143 | 1394 | 113 | 1196 | 129 | 1376 | 139 | 1595 | 104 | 1305 | 116 | 1597 | 120 | 1413 | 146 | 1925 | 132 | 1406 |
| 16-22 | 103 | 1064 | 115 | 1214 | 133 | 1389 | 163 | 1633 | 160 | 1653 | 179 | 1829 | 150 | 1544 | 122 | 1318 | 141 | 1517 | 159 | 1754 | 128 | 1433 | 143 | 1740 | 139 | 1552 | 166 | 2091 | 144 | 1550 |
| 23-29 | 105 | 1169 | 123 | 1337 | 132 | 1521 | 143 | 1776 | 134 | 1787 | 157 | 1986 | 138 | 1682 | 114 | 1432 | 127 | 1644 | 141 | 1895 | 118 | 1551 | 126 | 1866 | 125 | 1677 | 153 | 2244 | 131 | 1681 |
| July 30-Aug. 5 | 127 | 1296 | 137 | 1474 | 148 | 1669 | 155 | 1931 | 170 | 1957 | 183 | 2169 | 158 | 1840 | 140 | 1572 | 151 | 1795 | 177 | 2072 | 147 | 1698 | 162 | 2028 | 155 | 1832 | 189 | 2433 | 156 | 1837 |
| Aug. 6-12 | 106 | 1402 | 106 | 1580 | 114 | 1783 | 138 | 2069 | 135 | 2092 | 155 | 2324 | 130 | 1970 | 115 | 1687 | 132 | 1927 | 156 | 2228 | 125 | 1823 | 146 | 2174 | 135 | 1967 | 173 | 2606 | 133 | 1970 |
| 13-19 | 102 | 1504 | 107 | 1687 | 119 | 1902 | 146 | 2215 | 148 | 2240 | 171 | 2495 | 138 | 2108 | 122 | 1809 | 139 | 2066 | 163 | 2391 | 133 | 1956 | 143 | 2317 | 140 | 2107 | 173 | 2779 | 139 | 2109 |
| 20-26 | 141 | 1645 | 146 | 1833 | 142 | 2044 | 150 | 2365 | 164 | 2404 | 167 | 2662 | 154 | 2262 | 151 | 1960 | 169 | 2235 | 167 | 2558 | 157 | 2113 | 156 | 2473 | 160 | 2267 | 182 | 2961 | 157 | 2266 |
| Aug. 27-Sept. 2 | 108 | 1753 | 107 | 1940 | 123 | 2167 | 147 | 2512 | 131 | 2535 | 148 | 2810 | 131 | 2393 | 110 | 2070 | 126 | 2361 | 134 | 2692 | 118 | 2231 | 127 | 2600 | 123 | 2390 | 156 | 3117 | 127 | 2393 |
| Sept. 3-9 | 100 | 1853 | 104 | 2044 | 126 | 2293 | 155 | 2667 | 141 | 2676 | 161 | 2971 | 137 | 2530 | 106 | 2176 | 127 | 2488 | 149 | 2841 | 112 | 2343 | 128 | 2728 | 125 | 2515 | 169 | 3286 | 131 | 2524 |
| 10-16 | 74 | 1927 | 81 | 2125 | 95 | 2388 | 104 | 2771 | 107 | 2783 | 119 | 3090 | 101 | 2631 | 83 | 2259 | 104 | 2592 | 127 | 2968 | 103 | 2446 | 116 | 2844 | 106 | 2621 | 145 | 3431 | 104 | 2628 |
| 17-23 | 45 | 1972 | 49 | 2174 | 71 | 2459 | 85 | 2856 | 78 | 2861 | 96 | 3186 | 76 | 2707 | 62 | 2321 | 77 | 2669 | 99 | 3067 | 66 | 2512 | 85 | 2929 | 78 | 2699 | 125 | 3556 | 77 | 2705 |
| 24-30 | 32 | 2004 | 37 | 2211 | 50 | 2509 | 62 | 2918 | 52 | 2913 | 76 | 3262 | 56 | 2763 | 39 | 2360 | 53 | 2722 | 69 | 3136 | 44 | 2556 | 54 | 2983 | 52 | 2751 | 101 | 3657 | 54 | 2759 |
| Oct. 1-7 | 36 | 2040 | 39 | 2250 | 45 | 2554 | 52 | 2970 | 45 | 2958 | 72 | 3334 | 51 | 2814 | 43 | 2403 | 42 | 2764 | 57 | 3193 | 46 | 2602 | 48 | 3031 | 47 | 2798 | 97 | 3754 | 49 | 2808 |
| 8-14 | 38 | 2078 | 48 | 2298 | 48 | 2602 | 57 | 3027 | 57 | 3015 | 58 | 3392 | 53 | 2867 | 43 | 2446 | 47 | 2811 | 55 | 3248 | 51 | 2653 | 57 | 3088 | 51 | 2849 | 78 | 3832 | 52 | 2860 |
| 15-21 | 65 | 2143 | 57 | 2355 | 52 | 2654 | 59 | 3086 | 55 | 3070 | 58 | 3450 | 56 | 2923 | 53 | 2499 | 63 | 2874 | 70 | 3318 | 67 | 2720 | 72 | 3160 | 65 | 2914 | 95 | 3927 | 61 | 2921 |
| 22-28 | 39 | 2182 | 44 | 2399 | 45 | 2699 | 56 | 3142 | 53 | 3123 | 81 | 3531 | 56 | 2979 | 41 | 2540 | 50 | 2924 | 88 | 3406 | 50 | 2770 | 61 | 3221 | 58 | 2972 | 108 | 4035 | 57 | 2978 |
| Oct. 29-Nov. 4 | 36 | 2218 | 42 | 2441 | 50 | 2749 | 64 | 3206 | 60 | 3183 | 79 | 3600 | 59 | 3038 | 52 | 2592 | 57 | 2981 | 73 | 3479 | 43 | 2813 | 61 | 3282 | 57 | 3029 | 97 | 4132 | 58 | 3036 |
| Nov. 5-11 | 31 | 2249 | 33 | 2474 | 40 | 2789 | 57 | 3263 | 50 | 3233 | 69 | 3679 | 50 | 3088 | 38 | 2630 | 50 | 3031 | 62 | 3541 | 36 | 2849 | 53 | 3335 | 48 | 3077 | 85 | 4217 | 49 | 3085 |
| 12-18 | 30 | 2279 | 31 | 2505 | 30 | 2819 | 30 | 3293 | 25 | 3258 | 36 | 3715 | 31 | 3119 | 29 | 2659 | 29 | 3060 | 45 | 3586 | 42 | 2891 | 53 | 3388 | 40 | 3117 | 69 | 4286 | 35 | 3120 |
| 19-25 | 34 | 2313 | 35 | 2540 | 35 | 2854 | 29 | 3322 | 29 | 3287 | 29 | 3744 | 31 | 3150 | 43 | 2702 | 41 | 3101 | 31 | 3617 | 43 | 2934 | 45 | 3433 | 40 | 3157 | 59 | 4345 | 36 | 3156 |
| Nov. 26-Dec. 2 | 41 | 2354 | 36 | 2576 | 44 | 2898 | 35 | 3357 | 37 | 3324 | 38 | 3782 | 38 | 3188 | 46 | 2748 | 46 | 3147 | 40 | 3657 | 43 | 2977 | 48 | 3481 | 44 | 3201 | 59 | 4404 | 41 | 3197 |
| Dec. 3-9 | 13 | 2367 | 10 | 2586 | 20 | 2918 | 11 | 3368 | 10 | 3334 | 23 | 3805 | 15 | 3203 | 27 | 2775 | 22 | 3169 | 28 | 3685 | 28 | 3005 | 34 | 3515 | 28 | 3229 | 48 | 4452 | 21 | 3218 |
| 10-16 | 0 | 2367 | 0 | 2586 | 0 | 2918 | 0 | 3368 | 0 | 3334 | 0 | 3805 | 0 | 3203 | 0 | 2775 | 0 | 3169 | 0 | 3685 | 5 | 3010 | 14 | 3529 | 4 | 3233 | 7 | 4459 | 2 | 3220 |
| 17-23 | 2 | 2369 | 0 | 2586 | 0 | 2918 | 0 | 3368 | 0 | 3334 | 0 | 3805 | 0 | 3203 | 0 | 2775 | 0 | 3169 | 2 | 3687 | 7 | 3017 | 20 | 3549 | 6 | 3239 | 24 | 4483 | 3 | 3223 |
| Dec. 24-30 | 0 | 2369 | 0 | 2586 | 0 | 2918 | 1 | 3369 | 0 | 3334 | 10 | 3815 | 2 | 3205 | 0 | 2775 | 0 | 3169 | 11 | 3698 | 0 | 3017 | 2 | 3551 | 3 | 3242 | 33 | 4516 | 3 | 3226 |

TABLE IV.—SHOWING THE WEEKLY AND PROGRESSIVE VALUES OF ACCUMULATED HEAT BELOW 42° F. IN EACH DISTRICT DURING THE YEAR 1899.

| DATE. — LIMITS OF WEEKS | 0. SCOTLAND, N. | | Principal Wheat-producing Districts. | | | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | | | CHANNEL ISLANDS. | | MEANS FOR THE BRITISH ISLANDS GENERALLY. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1. SCOTLAND, E. | | 2. ENGLAND, N.E. | | 3. ENGLAND, E. | | 4. MIDLAND COUNTIES. | | 5. ENGLAND, S. | | MEANS FOR WHEAT PRODUCING DISTRICTS. | | 6. SCOTLAND, W. | | 7. ENGLAND, N.W. | | 8. ENGLAND, S.W. | | 9. IRELAND, N. | | 10. IRELAND, S. | | MEANS FOR GRAZING, &C. DISTRICTS. | | | | | |
| | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. |
| | DAY-DEGREES BELOW 42° FAHRENHEIT. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **1899.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. 1-7 | 33 | 33 | 42 | 42 | 32 | 32 | 33 | 33 | 36 | 36 | 14 | 14 | 31 | 31 | 28 | 28 | 24 | 24 | 11 | 11 | 35 | 35 | 17 | 17 | 23 | 23 | 0 | 0 | 27 | 27 |
| 8-14 | 25 | 58 | 34 | 76 | 21 | 53 | 11 | 44 | 13 | 49 | 2 | 16 | 16 | 47 | 18 | 46 | 7 | 31 | 1 | 12 | 22 | 57 | 13 | 30 | 12 | 35 | 0 | 0 | 14 | 41 |
| 15-21 | 43 | 101 | 33 | 109 | 14 | 67 | 11 | 55 | 11 | 60 | 1 | 17 | 14 | 61 | 11 | 57 | 5 | 36 | 0 | 12 | 11 | 68 | 4 | 34 | 6 | 41 | 0 | 0 | 10 | 51 |
| 22-28 | 57 | 158 | 76 | 185 | 41 | 108 | 28 | 83 | 43 | 103 | 26 | 43 | 43 | 104 | 53 | 110 | 40 | 76 | 29 | 41 | 40 | 108 | 30 | 64 | 39 | 80 | 6 | 6 | 41 | 92 |
| Jan. 29-Feb. 4 | 50 | 208 | 55 | 240 | 41 | 149 | 43 | 126 | 54 | 157 | 45 | 88 | 48 | 152 | 51 | 161 | 43 | 119 | 41 | 82 | 44 | 152 | 36 | 100 | 43 | 123 | 23 | 29 | 45 | 137 |
| Feb. 5-11 | 31 | 239 | 32 | 272 | 16 | 165 | 8 | 134 | 10 | 167 | 0 | 88 | 13 | 165 | 16 | 177 | 7 | 126 | 0 | 82 | 6 | 158 | 0 | 100 | 5 | 128 | 0 | 29 | 9 | 146 |
| 12-18 | 11 | 250 | 14 | 286 | 16 | 181 | 7 | 141 | 12 | 179 | 1 | 89 | 10 | 175 | 7 | 184 | 8 | 134 | 3 | 85 | 10 | 168 | 8 | 108 | 7 | 135 | 0 | 29 | 9 | 155 |
| 19-25 | 48 | 298 | 52 | 338 | 30 | 211 | 35 | 176 | 40 | 219 | 14 | 103 | 34 | 209 | 31 | 215 | 26 | 160 | 8 | 93 | 27 | 195 | 30 | 138 | 25 | 160 | 0 | 29 | 30 | 185 |
| Feb. 26-Mar. 4 | 26 | 324 | 36 | 374 | 33 | 244 | 50 | 226 | 54 | 273 | 49 | 152 | 44 | 253 | 25 | 240 | 30 | 190 | 37 | 130 | 15 | 210 | 16 | 154 | 25 | 185 | 13 | 42 | 35 | 220 |
| Mar. 5-11 | 27 | 351 | 29 | 403 | 33 | 277 | 45 | 271 | 43 | 316 | 35 | 187 | 37 | 290 | 20 | 260 | 26 | 216 | 30 | 160 | 26 | 236 | 17 | 171 | 24 | 209 | 9 | 51 | 30 | 250 |
| 12-18 | 9 | 360 | 17 | 420 | 17 | 294 | 25 | 296 | 24 | 340 | 14 | 201 | 19 | 309 | 13 | 273 | 9 | 225 | 7 | 167 | 7 | 243 | 4 | 175 | 8 | 217 | 0 | 51 | 14 | 264 |
| 19-25 | 89 | 449 | 83 | 503 | 74 | 368 | 76 | 372 | 76 | 416 | 65 | 266 | 75 | 384 | 62 | 335 | 55 | 280 | 50 | 217 | 43 | 286 | 46 | 221 | 51 | 268 | 29 | 80 | 63 | 327 |
| 26-April 1 | 16 | 465 | 17 | 520 | 11 | 379 | 5 | 377 | 1 | 417 | 0 | 266 | 7 | 391 | 0 | 335 | 0 | 280 | 0 | 217 | 0 | 286 | 0 | 221 | 0 | 268 | 0 | 80 | 3 | 330 |
| April 2-8 | 11 | 476 | 11 | 531 | 2 | 381 | 0 | 377 | 0 | 417 | 0 | 266 | 3 | 394 | 2 | 337 | 0 | 280 | 0 | 217 | 0 | 286 | 0 | 221 | 1 | 269 | 0 | 80 | 2 | 332 |
| 9-15 | 29 | 505 | 29 | 560 | 23 | 404 | 13 | 390 | 15 | 432 | 10 | 276 | 18 | 412 | 19 | 356 | 11 | 291 | 7 | 224 | 14 | 300 | 10 | 231 | 12 | 281 | 0 | 80 | 15 | 347 |
| 16-22 | 45 | 550 | 40 | 600 | 26 | 430 | 18 | 408 | 23 | 455 | 15 | 291 | 24 | 436 | 32 | 388 | 12 | 303 | 16 | 240 | 16 | 316 | 13 | 244 | 18 | 299 | 1 | 81 | 21 | 368 |
| 23-29 | 7 | 557 | 6 | 606 | 3 | 433 | 0 | 408 | 0 | 455 | 0 | 291 | 2 | 438 | 1 | 389 | 0 | 303 | 0 | 240 | 0 | 316 | 0 | 244 | 0 | 299 | 0 | 81 | 1 | 369 |
| April 30-May 6 | 33 | 590 | 33 | 639 | 15 | 448 | 13 | 421 | 15 | 470 | 3 | 294 | 16 | 454 | 17 | 406 | 10 | 313 | 0 | 240 | 7 | 323 | 0 | 244 | 7 | 306 | 0 | 81 | 12 | 381 |
| May 7-13 | 6 | 596 | 8 | 647 | 2 | 450 | 0 | 421 | 1 | 471 | 0 | 294 | 2 | 456 | 2 | 408 | 0 | 313 | 0 | 240 | 0 | 323 | 1 | 245 | 0 | 306 | 0 | 81 | 1 | 382 |
| 14-20 | 3 | 599 | 4 | 651 | 0 | 450 | 0 | 421 | 0 | 471 | 0 | 294 | 1 | 457 | 0 | 408 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 306 | 0 | 81 | 0 | 382 |
| 21-27 | 18 | 617 | 18 | 669 | 6 | 456 | 0 | 421 | 2 | 473 | 0 | 294 | 5 | 462 | 5 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 1 | 307 | 0 | 81 | 3 | 385 |
| May 28-June 3 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 5 | 478 | 0 | 294 | 1 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| June 4-10 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| 11-17 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| 18-24 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| 25-July 1 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| July 2-8 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| 9-15 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| 16-22 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| 23-29 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| July 30-Aug. 5 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| Aug. 6-12 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| 13-19 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| 20-26 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| Aug. 27-Sept. 2 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| Sept. 3-9 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| 10-16 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| 17-23 | 0 | 617 | 0 | 669 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 0 | 463 | 0 | 413 | 0 | 313 | 0 | 240 | 0 | 323 | 0 | 245 | 0 | 307 | 0 | 81 | 0 | 385 |
| 24-30 | 7 | 624 | 8 | 677 | 0 | 456 | 0 | 421 | 0 | 478 | 0 | 294 | 2 | 465 | 1 | 414 | 0 | 313 | 0 | 240 | 2 | 325 | 0 | 245 | 1 | 308 | 0 | 81 | 2 | 387 |
| Oct. 1-7 | 3 | 627 | 1 | 678 | 1 | 457 | 0 | 421 | 6 | 484 | 0 | 294 | 2 | 467 | 3 | 417 | 1 | 314 | 0 | 240 | 0 | 325 | 5 | 250 | 2 | 310 | 0 | 81 | 2 | 389 |
| 8-14 | 0 | 627 | 0 | 678 | 0 | 457 | 11 | 432 | 15 | 499 | 7 | 301 | 7 | 474 | 0 | 417 | 1 | 315 | 3 | 243 | 0 | 325 | 0 | 250 | 1 | 311 | 0 | 81 | 4 | 393 |
| 15-21 | 0 | 627 | 4 | 682 | 6 | 463 | 11 | 443 | 24 | 523 | 0 | 301 | 9 | 483 | 0 | 417 | 5 | 320 | 0 | 243 | 0 | 325 | 0 | 250 | 1 | 312 | 0 | 81 | 5 | 398 |
| 22-28 | 3 | 630 | 12 | 694 | 0 | 463 | 0 | 443 | 0 | 523 | 0 | 301 | 2 | 485 | 3 | 420 | 0 | 320 | 0 | 243 | 0 | 325 | 0 | 250 | 0 | 312 | 0 | 81 | 1 | 399 |
| Oct. 29-Nov. 4 | 2 | 632 | 6 | 700 | 0 | 463 | 0 | 443 | 0 | 523 | 0 | 301 | 1 | 486 | 0 | 420 | 0 | 320 | 0 | 243 | 0 | 325 | 0 | 250 | 0 | 312 | 0 | 81 | 0 | 399 |
| Nov. 5-11 | 7 | 639 | 11 | 711 | 3 | 466 | 0 | 443 | 0 | 523 | 0 | 301 | 3 | 489 | 2 | 422 | 0 | 320 | 0 | 243 | 1 | 326 | 0 | 250 | 1 | 313 | 0 | 81 | 2 | 401 |
| 12-18 | 10 | 649 | 16 | 727 | 9 | 475 | 12 | 455 | 12 | 535 | 2 | 303 | 10 | 499 | 3 | 425 | 3 | 323 | 0 | 243 | 0 | 326 | 0 | 250 | 1 | 314 | 0 | 81 | 6 | 407 |
| 19-25 | 1 | 650 | 3 | 730 | 1 | 476 | 9 | 464 | 11 | 546 | 2 | 305 | 5 | 504 | 0 | 425 | 0 | 323 | 1 | 244 | 0 | 326 | 0 | 250 | 0 | 314 | 0 | 81 | 3 | 410 |
| Nov. 26-Dec. 2 | 0 | 650 | 0 | 730 | 0 | 476 | 8 | 472 | 6 | 552 | 3 | 308 | 4 | 508 | 0 | 425 | 0 | 323 | 0 | 244 | 0 | 326 | 0 | 250 | 0 | 314 | 0 | 81 | 2 | 412 |
| Dec. 3-9 | 25 | 675 | 31 | 761 | 13 | 489 | 22 | 494 | 33 | 585 | 12 | 320 | 22 | 530 | 8 | 433 | 10 | 333 | 7 | 251 | 3 | 329 | 0 | 250 | 6 | 320 | 0 | 81 | 14 | 426 |
| 10-16 | 43 | 718 | 88 | 849 | 94 | 583 | 96 | 590 | 107 | 692 | 72 | 392 | 91 | 621 | 65 | 498 | 79 | 412 | 50 | 301 | 29 | 358 | 28 | 278 | 50 | 370 | 22 | 103 | 70 | 496 |
| 17-23 | 32 | 750 | 51 | 900 | 46 | 629 | 43 | 633 | 56 | 748 | 41 | 433 | 47 | 668 | 27 | 525 | 44 | 456 | 25 | 326 | 22 | 380 | 4 | 282 | 24 | 394 | 10 | 113 | 36 | 532 |
| Dec. 24-30 | 59 | 809 | 69 | 969 | 50 | 679 | 40 | 673 | 41 | 789 | 34 | 467 | 47 | 715 | 50 | 575 | 41 | 497 | 28 | 354 | 44 | 424 | 33 | 315 | 39 | 433 | 0 | 113 | 43 | 575 |

# TABLE V.—SHOWING THE WEEKLY AND PROGRESSIVE NUMBERS OF HOURS OF BRIGHT SUNSHINE IN EACH DISTRICT REGISTERED DURING THE YEAR 1899.

| DATE. — LIMITS OF WEEKS. | Principal Wheat-producing Districts. | | | | | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | | | Channel Islands. | | Means for the British Islands generally. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0. Scotland, N. | | 1. Scotland, E. | | 2. England, N.E. | | 3. England, E. | | 4. Midland Counties. | | 5. England, S. | | Means for Wheat Producing Districts. | | 6. Scotland, W. | | 7. England, N.W. | | 8. England, S.W. | | 9. Ireland, N. | | 10. Ireland, S. | | Means for Grazing, &c. Districts. | | | | | |
| | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. |
| | Numbers of Hours of Bright Sunshine. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **1899.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. 1-7 | 7 | 7 | 5 | 5 | 5 | 5 | 14 | 14 | 8 | 8 | 11 | 11 | 9 | 9 | 3 | 3 | 7 | 7 | 7 | 7 | 3 | 3 | 6 | 6 | 5 | 5 | 7 | 7 | 7 | 7 |
| 8-14 | 6 | 13 | 8 | 13 | 7 | 12 | 19 | 33 | 11 | 19 | 17 | 28 | 12 | 21 | 6 | 9 | 7 | 14 | 5 | 12 | 13 | 16 | 13 | 19 | 9 | 14 | 8 | 15 | 11 | 18 |
| 15-21 | 6 | 19 | 9 | 22 | 10 | 22 | 8 | 41 | 7 | 26 | 3 | 31 | 8 | 29 | 7 | 16 | 8 | 22 | 4 | 16 | 7 | 23 | 9 | 28 | 7 | 21 | 4 | 19 | 8 | 26 |
| 22-28 | 16 | 35 | 19 | 41 | 15 | 37 | 36 | 77 | 26 | 52 | 36 | 67 | 26 | 55 | 17 | 33 | 21 | 43 | 34 | 50 | 27 | 50 | 27 | 55 | 25 | 46 | 27 | 46 | 25 | 51 |
| Jan. 29-Feb. 4 | 9 | 44 | 11 | 52 | 10 | 47 | 15 | 92 | 10 | 62 | 15 | 82 | 12 | 67 | 15 | 48 | 14 | 57 | 17 | 67 | 15 | 65 | 10 | 65 | 14 | 60 | 19 | 65 | 13 | 64 |
| Feb. 5-11 | 6 | 50 | 6 | 58 | 9 | 56 | 11 | 103 | 6 | 68 | 7 | 89 | 8 | 75 | 3 | 51 | 8 | 65 | 14 | 81 | 5 | 70 | 9 | 74 | 8 | 68 | 20 | 85 | 8 | 72 |
| 12-18 | 7 | 57 | 15 | 73 | 19 | 75 | 25 | 128 | 19 | 87 | 23 | 112 | 20 | 95 | 16 | 67 | 16 | 81 | 17 | 98 | 21 | 91 | 23 | 97 | 19 | 87 | 20 | 105 | 20 | 92 |
| 19-25 | 40 | 97 | 34 | 107 | 26 | 101 | 42 | 170 | 32 | 119 | 42 | 154 | 35 | 130 | 19 | 86 | 32 | 113 | 28 | 126 | 19 | 110 | 17 | 114 | 23 | 110 | 27 | 132 | 29 | 121 |
| Feb. 26-Mar. 4 | 22 | 119 | 25 | 132 | 27 | 128 | 42 | 212 | 36 | 155 | 48 | 202 | 36 | 166 | 26 | 112 | 35 | 148 | 49 | 175 | 34 | 144 | 46 | 160 | 38 | 148 | 58 | 190 | 37 | 158 |
| Mar. 5-11 | 11 | 130 | 10 | 142 | 18 | 146 | 48 | 260 | 38 | 193 | 46 | 248 | 32 | 198 | 13 | 125 | 27 | 175 | 38 | 213 | 25 | 169 | 25 | 185 | 26 | 174 | 42 | 232 | 29 | 187 |
| 12-18 | 29 | 159 | 46 | 188 | 48 | 194 | 37 | 297 | 34 | 227 | 35 | 283 | 40 | 238 | 34 | 159 | 36 | 211 | 40 | 253 | 36 | 205 | 40 | 225 | 37 | 211 | 44 | 276 | 38 | 225 |
| 19-25 | 31 | 190 | 36 | 224 | 33 | 227 | 38 | 335 | 42 | 269 | 43 | 326 | 38 | 276 | 47 | 206 | 49 | 260 | 47 | 300 | 45 | 250 | 43 | 268 | 46 | 257 | 47 | 323 | 42 | 267 |
| 26-April 1 | 13 | 203 | 17 | 241 | 12 | 239 | 19 | 354 | 20 | 289 | 20 | 346 | 18 | 294 | 15 | 221 | 23 | 283 | 23 | 323 | 16 | 266 | 18 | 286 | 19 | 276 | 31 | 354 | 19 | 286 |
| April 2-8 | 25 | 228 | 28 | 269 | 29 | 268 | 27 | 381 | 24 | 313 | 22 | 368 | 26 | 320 | 20 | 241 | 18 | 301 | 22 | 345 | 29 | 295 | 31 | 317 | 24 | 300 | 22 | 376 | 25 | 311 |
| 9-15 | 34 | 262 | 28 | 297 | 21 | 289 | 29 | 410 | 27 | 340 | 29 | 397 | 27 | 347 | 27 | 268 | 24 | 325 | 34 | 379 | 30 | 325 | 30 | 347 | 29 | 329 | 37 | 413 | 28 | 339 |
| 16-22 | 44 | 306 | 40 | 337 | 37 | 326 | 41 | 451 | 33 | 373 | 43 | 440 | 39 | 386 | 48 | 316 | 47 | 372 | 47 | 426 | 40 | 365 | 53 | 400 | 47 | 376 | 59 | 472 | 43 | 382 |
| 23-29 | 21 | 327 | 28 | 365 | 15 | 341 | 15 | 466 | 18 | 391 | 25 | 465 | 20 | 406 | 18 | 334 | 17 | 389 | 26 | 452 | 14 | 379 | 22 | 422 | 19 | 395 | 32 | 504 | 20 | 402 |
| April 30-May 6 | 59 | 386 | 42 | 407 | 40 | 381 | 60 | 526 | 50 | 441 | 56 | 521 | 50 | 456 | 57 | 391 | 61 | 450 | 56 | 508 | 53 | 432 | 56 | 478 | 57 | 452 | 58 | 562 | 53 | 455 |
| May 7-13 | 41 | 427 | 33 | 440 | 27 | 408 | 46 | 572 | 36 | 477 | 58 | 579 | 40 | 496 | 36 | 427 | 35 | 485 | 40 | 548 | 39 | 471 | 41 | 519 | 38 | 490 | 56 | 618 | 39 | 494 |
| 14-20 | 18 | 445 | 26 | 466 | 23 | 431 | 37 | 609 | 32 | 509 | 35 | 614 | 30 | 526 | 31 | 458 | 30 | 515 | 36 | 584 | 35 | 506 | 41 | 560 | 35 | 525 | 43 | 661 | 33 | 527 |
| 21-27 | 50 | 495 | 33 | 499 | 38 | 469 | 27 | 636 | 26 | 535 | 31 | 645 | 31 | 557 | 24 | 482 | 26 | 541 | 32 | 616 | 33 | 539 | 46 | 606 | 32 | 557 | 43 | 704 | 32 | 559 |
| May 28-June 3 | 43 | 538 | 64 | 563 | 65 | 534 | 94 | 730 | 88 | 623 | 95 | 740 | 81 | 638 | 69 | 551 | 83 | 624 | 94 | 710 | 66 | 605 | 76 | 682 | 77 | 634 | 97 | 801 | 79 | 638 |
| June 4-10 | 32 | 570 | 53 | 616 | 55 | 589 | 66 | 796 | 74 | 697 | 78 | 818 | 65 | 703 | 70 | 621 | 92 | 716 | 83 | 793 | 70 | 675 | 79 | 761 | 79 | 713 | 67 | 868 | 72 | 710 |
| 11-17 | 70 | 640 | 80 | 696 | 73 | 662 | 66 | 862 | 79 | 776 | 76 | 894 | 75 | 778 | 77 | 698 | 88 | 804 | 85 | 878 | 68 | 743 | 66 | 827 | 77 | 790 | 87 | 955 | 76 | 786 |
| 18-24 | 16 | 656 | 15 | 711 | 20 | 682 | 32 | 894 | 28 | 802 | 34 | 928 | 26 | 804 | 23 | 721 | 31 | 835 | 44 | 922 | 27 | 770 | 28 | 855 | 30 | 820 | 47 | 1002 | 28 | 814 |
| 25-July 1 | 32 | 688 | 30 | 741 | 28 | 710 | 48 | 942 | 31 | 833 | 51 | 979 | 37 | 841 | 21 | 742 | 21 | 856 | 38 | 960 | 11 | 781 | 17 | 872 | 22 | 842 | 56 | 1058 | 30 | 844 |
| July 2-8 | 22 | 710 | 33 | 774 | 47 | 757 | 43 | 985 | 46 | 879 | 54 | 1033 | 45 | 886 | 45 | 787 | 37 | 893 | 55 | 1015 | 24 | 805 | 25 | 897 | 37 | 879 | 70 | 1128 | 41 | 885 |
| 9-15 | 24 | 734 | 28 | 802 | 29 | 786 | 52 | 1037 | 47 | 926 | 54 | 1087 | 42 | 928 | 27 | 814 | 34 | 927 | 37 | 1052 | 22 | 827 | 26 | 923 | 29 | 908 | 46 | 1174 | 36 | 921 |
| 16-22 | 28 | 762 | 19 | 821 | 19 | 805 | 61 | 1098 | 48 | 974 | 80 | 1167 | 45 | 973 | 24 | 838 | 40 | 967 | 61 | 1113 | 15 | 842 | 27 | 950 | 34 | 942 | 75 | 1249 | 39 | 960 |
| 23-29 | 21 | 783 | 35 | 856 | 34 | 839 | 55 | 1153 | 49 | 1023 | 64 | 1231 | 47 | 1020 | 33 | 871 | 38 | 1005 | 72 | 1185 | 27 | 869 | 33 | 983 | 40 | 982 | 68 | 1317 | 44 | 1004 |
| July 30-Aug. 5 | 52 | 835 | 45 | 901 | 47 | 886 | 80 | 1233 | 65 | 1088 | 77 | 1308 | 63 | 1083 | 53 | 924 | 59 | 1064 | 68 | 1253 | 46 | 915 | 57 | 1040 | 57 | 1039 | 72 | 1389 | 60 | 1064 |
| Aug. 6-12 | 59 | 894 | 47 | 948 | 36 | 922 | 56 | 1289 | 51 | 1139 | 58 | 1366 | 50 | 1133 | 43 | 967 | 60 | 1124 | 73 | 1326 | 54 | 969 | 62 | 1102 | 58 | 1097 | 73 | 1462 | 54 | 1118 |
| 13-19 | 39 | 933 | 44 | 992 | 30 | 952 | 40 | 1329 | 43 | 1182 | 63 | 1429 | 44 | 1177 | 32 | 999 | 44 | 1168 | 75 | 1401 | 49 | 1018 | 59 | 1161 | 52 | 1149 | 77 | 1539 | 48 | 1166 |
| 20-26 | 50 | 983 | 55 | 1047 | 53 | 1005 | 76 | 1405 | 71 | 1253 | 81 | 1510 | 67 | 1244 | 59 | 1058 | 68 | 1236 | 78 | 1479 | 62 | 1080 | 63 | 1224 | 66 | 1215 | 82 | 1621 | 67 | 1233 |
| Aug. 27-Sept. 2 | 25 | 1008 | 25 | 1072 | 32 | 1037 | 49 | 1454 | 40 | 1293 | 47 | 1557 | 38 | 1282 | 34 | 1092 | 38 | 1274 | 45 | 1524 | 36 | 1116 | 41 | 1265 | 39 | 1254 | 49 | 1670 | 39 | 1272 |
| Sept. 3-9 | 29 | 1037 | 28 | 1100 | 41 | 1078 | 46 | 1500 | 42 | 1335 | 58 | 1615 | 43 | 1325 | 32 | 1124 | 43 | 1317 | 57 | 1581 | 35 | 1151 | 37 | 1302 | 41 | 1295 | 62 | 1732 | 42 | 1314 |
| 10-16 | 22 | 1059 | 23 | 1123 | 27 | 1105 | 36 | 1536 | 28 | 1363 | 35 | 1650 | 30 | 1355 | 23 | 1147 | 21 | 1338 | 31 | 1612 | 12 | 1163 | 16 | 1318 | 21 | 1316 | 43 | 1775 | 26 | 1340 |
| 17-23 | 22 | 1081 | 34 | 1157 | 40 | 1145 | 43 | 1579 | 37 | 1400 | 44 | 1694 | 40 | 1395 | 35 | 1182 | 28 | 1366 | 33 | 1645 | 27 | 1190 | 26 | 1344 | 30 | 1346 | 37 | 1812 | 35 | 1375 |
| 24-30 | 17 | 1098 | 19 | 1176 | 20 | 1165 | 38 | 1617 | 30 | 1430 | 33 | 1727 | 28 | 1423 | 21 | 1203 | 24 | 1390 | 31 | 1676 | 23 | 1213 | 29 | 1373 | 25 | 1371 | 27 | 1839 | 26 | 1401 |
| Oct. 1-7 | 17 | 1115 | 23 | 1199 | 29 | 1194 | 17 | 1634 | 20 | 1450 | 22 | 1749 | 22 | 1445 | 28 | 1231 | 30 | 1420 | 28 | 1704 | 33 | 1246 | 42 | 1415 | 32 | 1403 | 33 | 1872 | 27 | 1428 |
| 8-14 | 17 | 1132 | 23 | 1222 | 24 | 1218 | 49 | 1683 | 41 | 1491 | 48 | 1797 | 37 | 1482 | 23 | 1254 | 35 | 1455 | 38 | 1742 | 30 | 1276 | 40 | 1455 | 33 | 1436 | 44 | 1916 | 35 | 1463 |
| 15-21 | 22 | 1154 | 28 | 1250 | 29 | 1247 | 53 | 1736 | 35 | 1526 | 52 | 1849 | 39 | 1521 | 22 | 1276 | 44 | 1499 | 40 | 1782 | 34 | 1310 | 34 | 1489 | 35 | 1471 | 50 | 1966 | 38 | 1501 |
| 22-28 | 13 | 1167 | 17 | 1267 | 15 | 1262 | 14 | 1750 | 12 | 1538 | 21 | 1870 | 16 | 1537 | 11 | 1287 | 16 | 1515 | 19 | 1801 | 19 | 1329 | 12 | 1501 | 16 | 1487 | 20 | 1986 | 16 | 1517 |
| Oct. 29-Nov. 4 | 9 | 1176 | 17 | 1284 | 16 | 1278 | 23 | 1773 | 18 | 1556 | 21 | 1891 | 19 | 1556 | 12 | 1299 | 18 | 1533 | 17 | 1818 | 15 | 1344 | 18 | 1519 | 16 | 1503 | 20 | 2006 | 18 | 1535 |
| Nov. 5-11 | 7 | 1183 | 17 | 1301 | 18 | 1296 | 21 | 1794 | 17 | 1573 | 20 | 1911 | 19 | 1575 | 18 | 1317 | 14 | 1547 | 20 | 1838 | 21 | 1365 | 26 | 1545 | 20 | 1523 | 21 | 2027 | 20 | 1555 |
| 12-18 | 6 | 1189 | 11 | 1312 | 14 | 1310 | 8 | 1802 | 9 | 1582 | 19 | 1930 | 12 | 1587 | 3 | 1320 | 14 | 1561 | 20 | 1858 | 8 | 1373 | 19 | 1564 | 12 | 1535 | 34 | 2061 | 12 | 1567 |
| 19-25 | 3 | 1192 | 6 | 1318 | 11 | 1321 | 5 | 1807 | 4 | 1586 | 2 | 1932 | 5 | 1592 | 7 | 1327 | 4 | 1565 | 5 | 1863 | 6 | 1379 | 7 | 1571 | 6 | 1541 | 8 | 2069 | 5 | 1572 |
| Nov. 26-Dec. 2 | 4 | 1196 | 7 | 1325 | 12 | 1333 | 20 | 1827 | 15 | 1601 | 14 | 1946 | 14 | 1606 | 6 | 1333 | 12 | 1577 | 9 | 1872 | 7 | 1386 | 12 | 1583 | 9 | 1550 | 11 | 2080 | 11 | 1583 |
| Dec. 3-9 | 1 | 1197 | 1 | 1326 | 3 | 1336 | 13 | 1840 | 6 | 1607 | 9 | 1955 | 6 | 1612 | 3 | 1336 | 5 | 1582 | 7 | 1879 | 1 | 1387 | 4 | 1587 | 4 | 1554 | 13 | 2093 | 5 | 1588 |
| 10-16 | 7 | 1204 | 6 | 1332 | 5 | 1341 | 9 | 1849 | 7 | 1614 | 13 | 1968 | 8 | 1620 | 4 | 1340 | 13 | 1595 | 12 | 1891 | 4 | 1391 | 7 | 1594 | 8 | 1562 | 11 | 2104 | 8 | 1596 |
| 17-23 | 3 | 1207 | 0 | 1332 | 0 | 1341 | 21 | 1850 | 1 | 1615 | 3 | 1971 | 1 | 1621 | 0 | 1340 | 3 | 1598 | 2 | 1893 | 5 | 1396 | 3 | 1597 | 3 | 1565 | 3 | 2107 | 2 | 1598 |
| Dec. 24-30 | 4 | 1211 | 8 | 1340 | 15 | 1356 | 14 | 1864 | 12 | 1627 | 12 | 1983 | 12 | 1633 | 10 | 1350 | 8 | 1606 | 14 | 1907 | 9 | 1405 | 14 | 1611 | 11 | 1576 | 10 | 2117 | 12 | 1610 |

TABLE VI.—SHOWING THE WEEKLY AND PROGRESSIVE VALUES FOR THE PERCENTAGES OF THE POSSIBLE DURATION OF BRIGHT SUNSHINE IN EACH DISTRICT WHICH WAS ACTUALLY RECORDED DURING THE YEAR 1899.

| DATE. — LIMITS OF WEEKS. | 0. SCOTLAND, N. | | Principal Wheat-producing Districts. | | | | | | | | | | | | Principal Grazing, &c. Districts. | | | | | | | | | | | | CHANNEL ISLANDS. | | MEANS FOR THE BRITISH ISLANDS GENERALLY. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1. SCOTLAND, E. | | 2. ENGLAND, N.E. | | 3. ENGLAND, E. | | 4. MIDLAND COUNTIES. | | 5. ENGLAND, S. | | MEANS FOR WHEAT PRODUCING DISTRICTS. | | 6. SCOTLAND, W. | | 7. ENGLAND, N.W. | | 8. ENGLAND, S.W. | | 9. IRELAND, N. | | 10. IRELAND, S. | | MEANS FOR GRAZING, &C. DISTRICTS. | | | | | |
| | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. | Weekly. | From Jan. 1/99. |
| | PERCENTAGES OF POSSIBLE DURATION. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **1899.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan. 1-7 | 14 | 14 | 10 | 10 | 10 | 10 | 27 | 27 | 16 | 16 | 20 | 20 | 16 | 17 | 7 | 7 | 13 | 13 | 13 | 13 | 6 | 6 | 12 | 12 | 10 | 10 | 13 | 13 | 13 | 14 |
| 8-14 | 12 | 12 | 15 | 13 | 14 | 11 | 35 | 28 | 20 | 18 | 31 | 27 | 23 | 20 | 12 | 9 | 15 | 13 | 9 | 11 | 25 | 15 | 23 | 18 | 17 | 13 | 13 | 15 | 20 | 17 |
| 15-21 | 11 | 12 | 18 | 15 | 19 | 14 | 14 | 23 | 12 | 16 | 5 | 19 | 14 | 17 | 13 | 10 | 14 | 14 | 6 | 9 | 13 | 15 | 15 | 17 | 12 | 13 | 7 | 12 | 13 | 15 |
| 22-28 | 30 | 17 | 34 | 20 | 26 | 16 | 60 | 32 | 44 | 25 | 59 | 29 | 44 | 24 | 30 | 16 | 36 | 21 | 55 | 22 | 47 | 23 | 45 | 25 | 43 | 22 | 43 | 20 | 44 | 23 |
| Jan 29-Feb. 4 | 16 | 17 | 19 | 20 | 17 | 17 | 24 | 30 | 16 | 23 | 24 | 28 | 20 | 24 | 25 | 18 | 22 | 21 | 26 | 23 | 25 | 24 | 16 | 23 | 23 | 22 | 29 | 22 | 22 | 23 |
| Feb. 5-11 | 9 | 15 | 10 | 18 | 15 | 16 | 17 | 28 | 10 | 21 | 11 | 25 | 13 | 22 | 4 | 15 | 12 | 19 | 21 | 22 | 8 | 21 | 14 | 22 | 12 | 20 | 29 | 23 | 13 | 21 |
| 12-18 | 10 | 14 | 22 | 19 | 29 | 18 | 37 | 29 | 28 | 22 | 33 | 26 | 30 | 23 | 24 | 17 | 24 | 20 | 24 | 23 | 32 | 23 | 34 | 24 | 28 | 20 | 28 | 25 | 29 | 22 |
| 19-25 | 58 | 21 | 49 | 24 | 36 | 21 | 58 | 33 | 45 | 26 | 58 | 31 | 49 | 27 | 28 | 19 | 45 | 24 | 38 | 25 | 27 | 23 | 23 | 24 | 32 | 23 | 37 | 28 | 41 | 25 |
| Feb. 26-Mar. 4 | 30 | 22 | 34 | 26 | 36 | 22 | 56 | 36 | 48 | 29 | 64 | 35 | 48 | 29 | 35 | 21 | 47 | 26 | 65 | 31 | 46 | 26 | 61 | 29 | 51 | 26 | 76 | 34 | 49 | 28 |
| Mar. 5-11 | 14 | 21 | 13 | 24 | 23 | 23 | 61 | 39 | 48 | 32 | 58 | 38 | 41 | 31 | 17 | 20 | 35 | 27 | 48 | 33 | 33 | 27 | 32 | 29 | 33 | 27 | 53 | 37 | 37 | 29 |
| 12-18 | 36 | 23 | 57 | 28 | 58 | 27 | 45 | 40 | 41 | 34 | 43 | 38 | 49 | 33 | 42 | 23 | 44 | 29 | 48 | 35 | 44 | 29 | 50 | 32 | 46 | 29 | 54 | 40 | 48 | 31 |
| 19-25 | 37 | 25 | 42 | 30 | 39 | 29 | 46 | 41 | 49 | 36 | 50 | 40 | 45 | 35 | 55 | 27 | 57 | 33 | 55 | 37 | 53 | 32 | 51 | 34 | 54 | 33 | 55 | 41 | 50 | 34 |
| 26-Apr. 1 | 14 | 23 | 19 | 29 | 14 | 28 | 21 | 39 | 22 | 34 | 23 | 38 | 20 | 34 | 17 | 26 | 26 | 32 | 26 | 36 | 18 | 31 | 20 | 33 | 21 | 32 | 35 | 41 | 20 | 33 |
| Apr. 2-8 | 27 | 23 | 30 | 29 | 31 | 28 | 30 | 39 | 27 | 34 | 24 | 37 | 28 | 33 | 22 | 25 | 20 | 31 | 24 | 35 | 32 | 31 | 34 | 33 | 26 | 31 | 25 | 40 | 27 | 32 |
| 9-15 | 35 | 24 | 29 | 29 | 22 | 28 | 31 | 37 | 28 | 33 | 31 | 37 | 28 | 33 | 29 | 26 | 26 | 30 | 36 | 35 | 31 | 31 | 31 | 33 | 31 | 31 | 39 | 40 | 30 | 32 |
| 16-22 | 44 | 26 | 40 | 30 | 37 | 28 | 42 | 37 | 34 | 33 | 45 | 38 | 40 | 33 | 48 | 28 | 47 | 32 | 48 | 36 | 41 | 32 | 54 | 34 | 48 | 32 | 60 | 42 | 44 | 33 |
| 23-29 | 20 | 25 | 27 | 30 | 15 | 28 | 15 | 35 | 18 | 32 | 25 | 37 | 20 | 32 | 18 | 27 | 17 | 31 | 26 | 36 | 14 | 30 | 21 | 34 | 19 | 32 | 32 | 41 | 20 | 32 |
| Apr. 30-May 6 | 54 | 28 | 39 | 30 | 38 | 28 | 56 | 37 | 48 | 34 | 54 | 38 | 47 | 33 | 54 | 29 | 58 | 33 | 54 | 37 | 51 | 32 | 53 | 35 | 54 | 33 | 57 | 42 | 51 | 33 |
| May 7-13 | 36 | 28 | 30 | 30 | 25 | 28 | 43 | 37 | 33 | 34 | 55 | 39 | 37 | 34 | 33 | 29 | 32 | 33 | 38 | 37 | 36 | 32 | 39 | 35 | 36 | 33 | 53 | 44 | 37 | 34 |
| 14-20 | 15 | 27 | 23 | 30 | 21 | 28 | 35 | 37 | 29 | 33 | 32 | 39 | 28 | 34 | 28 | 29 | 27 | 33 | 34 | 37 | 32 | 32 | 37 | 36 | 32 | 33 | 41 | 43 | 30 | 34 |
| 21-27 | 42 | 28 | 28 | 30 | 33 | 28 | 24 | 36 | 24 | 33 | 28 | 38 | 27 | 33 | 21 | 29 | 23 | 32 | 29 | 36 | 29 | 32 | 41 | 36 | 29 | 33 | 39 | 43 | 28 | 33 |
| May 28-June 3 | 35 | 29 | 54 | 31 | 54 | 30 | 83 | 39 | 76 | 36 | 85 | 41 | 70 | 35 | 60 | 31 | 73 | 35 | 85 | 39 | 58 | 34 | 67 | 38 | 69 | 35 | 88 | 45 | 70 | 35 |
| June 4-10 | 26 | 29 | 44 | 32 | 47 | 31 | 58 | 40 | 64 | 38 | 69 | 43 | 56 | 37 | 59 | 32 | 79 | 37 | 74 | 41 | 60 | 35 | 69 | 40 | 68 | 37 | 60 | 46 | 62 | 37 |
| 11-17 | 56 | 31 | 66 | 34 | 61 | 33 | 58 | 41 | 60 | 40 | 67 | 44 | 64 | 38 | 65 | 34 | 75 | 40 | 75 | 43 | 58 | 37 | 57 | 41 | 66 | 39 | 78 | 48 | 65 | 39 |
| 18-24 | 13 | 29 | 12 | 33 | 17 | 32 | 28 | 40 | 22 | 39 | 36 | 43 | 22 | 37 | 19 | 34 | 27 | 39 | 39 | 43 | 23 | 36 | 24 | 40 | 26 | 39 | 42 | 48 | 24 | 38 |
| 25-July 1 | 26 | 29 | 25 | 33 | 24 | 32 | 42 | 40 | 27 | 38 | 44 | 43 | 32 | 37 | 18 | 33 | 18 | 38 | 34 | 43 | 10 | 34 | 15 | 39 | 19 | 38 | 50 | 49 | 26 | 38 |
| July 2-8 | 18 | 28 | 28 | 32 | 40 | 32 | 38 | 40 | 40 | 38 | 48 | 43 | 39 | 37 | 38 | 33 | 31 | 38 | 48 | 43 | 21 | 34 | 22 | 38 | 32 | 37 | 63 | 50 | 36 | 37 |
| 9-15 | 20 | 28 | 23 | 32 | 25 | 32 | 46 | 40 | 41 | 38 | 48 | 43 | 37 | 37 | 23 | 33 | 30 | 37 | 33 | 42 | 19 | 33 | 23 | 37 | 26 | 37 | 42 | 50 | 32 | 37 |
| 16-22 | 23 | 27 | 16 | 31 | 17 | 31 | 55 | 41 | 44 | 38 | 72 | 44 | 41 | 37 | 21 | 32 | 36 | 37 | 55 | 43 | 13 | 32 | 24 | 36 | 30 | 36 | 69 | 51 | 36 | 37 |
| 23-29 | 18 | 27 | 31 | 31 | 31 | 31 | 50 | 41 | 45 | 39 | 59 | 45 | 43 | 37 | 30 | 32 | 35 | 37 | 67 | 44 | 25 | 32 | 30 | 36 | 37 | 36 | 64 | 51 | 41 | 37 |
| July 30-Aug. 5 | 46 | 28 | 41 | 31 | 43 | 32 | 75 | 42 | 61 | 40 | 73 | 46 | 59 | 38 | 53 | 33 | 55 | 38 | 64 | 45 | 42 | 32 | 53 | 37 | 53 | 37 | 69 | 52 | 56 | 38 |
| Aug. 6-12 | 54 | 29 | 44 | 32 | 34 | 32 | 54 | 42 | 49 | 40 | 56 | 46 | 47 | 38 | 41 | 33 | 57 | 38 | 70 | 46 | 52 | 33 | 59 | 38 | 56 | 38 | 72 | 53 | 52 | 38 |
| 13-19 | 37 | 29 | 42 | 32 | 29 | 32 | 39 | 42 | 43 | 40 | 63 | 47 | 43 | 39 | 31 | 33 | 43 | 38 | 75 | 46 | 48 | 33 | 58 | 38 | 51 | 38 | 78 | 54 | 47 | 39 |
| 20-26 | 50 | 30 | 54 | 33 | 54 | 33 | 77 | 44 | 73 | 41 | 83 | 48 | 68 | 40 | 59 | 33 | 69 | 39 | 80 | 47 | 63 | 34 | 64 | 39 | 67 | 38 | 85 | 55 | 68 | 39 |
| Aug. 27-Sept. 2 | 25 | 30 | 26 | 33 | 33 | 33 | 52 | 44 | 43 | 41 | 49 | 48 | 40 | 40 | 36 | 34 | 40 | 39 | 48 | 47 | 37 | 34 | 43 | 39 | 41 | 38 | 52 | 55 | 41 | 39 |
| Sept. 3-9 | 31 | 30 | 30 | 33 | 44 | 33 | 50 | 44 | 46 | 42 | 64 | 48 | 47 | 40 | 35 | 34 | 46 | 39 | 62 | 48 | 38 | 34 | 41 | 39 | 44 | 39 | 68 | 55 | 46 | 40 |
| 10-16 | 25 | 30 | 25 | 32 | 31 | 33 | 41 | 44 | 31 | 41 | 40 | 48 | 34 | 40 | 26 | 33 | 23 | 39 | 35 | 48 | 14 | 34 | 18 | 39 | 23 | 38 | 48 | 55 | 29 | 39 |
| 17-23 | 26 | 30 | 40 | 33 | 47 | 33 | 51 | 44 | 44 | 41 | 51 | 48 | 46 | 40 | 41 | 33 | 33 | 39 | 38 | 47 | 32 | 34 | 30 | 38 | 35 | 38 | 43 | 55 | 41 | 39 |
| 24-30 | 20 | 30 | 24 | 32 | 24 | 33 | 46 | 44 | 36 | 41 | 41 | 48 | 34 | 40 | 26 | 33 | 29 | 39 | 38 | 47 | 29 | 34 | 35 | 38 | 32 | 38 | 33 | 54 | 33 | 39 |
| Oct. 1-7 | 22 | 29 | 29 | 32 | 37 | 33 | 21 | 43 | 25 | 41 | 28 | 47 | 28 | 39 | 36 | 33 | 38 | 39 | 35 | 47 | 42 | 34 | 54 | 39 | 41 | 38 | 42 | 54 | 35 | 39 |
| 8-14 | 23 | 29 | 31 | 32 | 32 | 33 | 66 | 44 | 25 | 41 | 63 | 48 | 49 | 40 | 32 | 33 | 47 | 39 | 50 | 47 | 40 | 34 | 54 | 39 | 45 | 38 | 57 | 54 | 47 | 39 |
| 15-21 | 32 | 29 | 40 | 32 | 41 | 33 | 73 | 44 | 48 | 41 | 71 | 48 | 55 | 40 | 31 | 33 | 61 | 39 | 55 | 47 | 48 | 34 | 47 | 39 | 48 | 38 | 68 | 54 | 52 | 39 |
| 22-28 | 20 | 29 | 25 | 32 | 23 | 33 | 21 | 44 | 17 | 41 | 30 | 48 | 23 | 40 | 16 | 33 | 24 | 39 | 27 | 47 | 28 | 34 | 17 | 39 | 22 | 38 | 29 | 54 | 23 | 39 |
| Oct. 29-Nov. 4 | 15 | 29 | 28 | 32 | 26 | 33 | 35 | 43 | 27 | 41 | 32 | 47 | 30 | 39 | 19 | 33 | 28 | 39 | 26 | 46 | 22 | 34 | 28 | 38 | 25 | 38 | 29 | 53 | 28 | 39 |
| Nov. 5-11 | 13 | 29 | 28 | 32 | 29 | 33 | 34 | 43 | 26 | 40 | 31 | 47 | 30 | 39 | 29 | 33 | 23 | 38 | 31 | 46 | 34 | 34 | 41 | 38 | 32 | 38 | 32 | 53 | 31 | 39 |
| 12-18 | 10 | 28 | 20 | 32 | 25 | 33 | 13 | 43 | 14 | 40 | 31 | 47 | 21 | 39 | 5 | 32 | 24 | 38 | 33 | 46 | 13 | 34 | 31 | 38 | 21 | 37 | 55 | 53 | 21 | 38 |
| 19-25 | 5 | 28 | 11 | 32 | 20 | 33 | 9 | 42 | 7 | 40 | 3 | 46 | 10 | 39 | 13 | 32 | 7 | 38 | 9 | 45 | 11 | 33 | 12 | 38 | 10 | 37 | 13 | 52 | 10 | 38 |
| Nov. 26-Dec. 2 | 7 | 28 | 14 | 31 | 22 | 32 | 36 | 42 | 27 | 39 | 25 | 46 | 25 | 38 | 12 | 32 | 22 | 38 | 16 | 45 | 13 | 33 | 21 | 38 | 17 | 37 | 19 | 52 | 21 | 38 |
| Dec. 3-9 | 3 | 28 | 3 | 31 | 5 | 32 | 24 | 42 | 12 | 39 | 17 | 45 | 12 | 38 | 6 | 31 | 9 | 37 | 13 | 44 | 3 | 33 | 8 | 37 | 8 | 36 | 23 | 51 | 10 | 37 |
| 10-16 | 17 | 27 | 13 | 31 | 9 | 32 | 16 | 42 | 14 | 39 | 24 | 45 | 15 | 38 | 9 | 31 | 24 | 37 | 21 | 44 | 8 | 32 | 13 | 37 | 15 | 36 | 20 | 51 | 15 | 37 |
| 17-23 | 6 | 27 | 0 | 31 | 0 | 31 | 2 | 41 | 1 | 38 | 6 | 45 | 2 | 37 | 0 | 31 | 6 | 37 | 4 | 44 | 11 | 32 | 6 | 37 | 5 | 36 | 5 | 50 | 4 | 37 |
| Dec. 24-30 | 8 | 27 | 16 | 30 | 31 | 31 | 27 | 41 | 22 | 38 | 22 | 44 | 23 | 37 | 21 | 31 | 16 | 36 | 25 | 43 | 19 | 32 | 27 | 37 | 22 | 36 | 18 | 50 | 22 | 37 |